

**BALDRIGE EDUCATION CRITERIA FOR PERFORMANCE EXCELLENCE:
PERCEPTIONS OF DISTRICT PERSONNEL OF IMPLEMENTATION
AND IMPACT ON COLLECTIVE TEACHER EFFICACY**

A Dissertation

by

KATHRYN A. LeROY

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY

August 2004

Major Subject: Educational Administration

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August 2004

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ABSTRACT

Baldrige Education Criteria for Performance Excellence:
Perceptions of District Personnel of Implementation
and Impact on Collective Teacher Efficacy. (August 2004)

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The purpose of this study was to identify those elements of the Baldrige Education Criteria for Performance Excellence that central office leaders, principals, and teachers perceive as having an impact on collective teacher efficacy. The study determined if there was a relationship between the perceptions of central office leaders, principals, and teachers concerning the implementation of the criteria, the difficulty of implementation, and the impact of implementation on collective teacher efficacy.

The population for this study included sixty individuals from three school districts from Texas, North Carolina, and New Mexico who have implemented the Baldrige Education Criteria for Performance Excellence for a minimum of five years. The Delphi Technique was used for the study utilizing a questionnaire linked to six of the seven categories of the Baldrige Education Criteria for Performance Excellence. Quantitative data was analyzed using descriptive statistics, which were reported using numerical and graphic techniques.

The key findings of this study suggest that the Baldrige Education Criteria for Performance Excellence, which the three study school districts chose as a framework for improving organizational performance, has had a perceived positive impact on collective teacher efficacy. The following conclusions were drawn from the data analysis:

- Implementation of the Baldrige Criteria requires a long-term commitment,
- Districts committed to implementation of the criteria develop systematic approaches to management processes, persevere in their deployment, and continually assess performance to determine areas for improvement.
- The difficulty of implementation of the criteria relates to the effort required to align and deploy systematic approaches throughout the organization.
- Commitment and implementation begins at the senior leadership level of central office and cascades through the organization to principals and classroom teachers. The extent to which systematic management approaches have been deployed to the classroom teacher level determines the level of impact of implementation on collective efficacy.
- The Baldrige Education Criteria for Performance Excellence provide a framework for school districts to improve organizational performance from a systems perspective to achieve organizational and student success.
- The more mature a district's deployment/implementation of the criteria, the greater the impact on collective teacher efficacy.

DEDICATION

To Gene — whose encouragement, support, and love gave me the strength to press on.

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I am most grateful to Dr. Bryan Cole who does not just teach about quality but models it as a teacher and as a colleague. He has served as mentor, guide, humorist, and friend when my spirits waned.

Not every student has the good fortune to assemble a committee of extraordinarily knowledgeable and gracious individuals; I was one of the lucky ones. Dr. Linda Skrla gave me opportunities to think deeply about the philosophical foundations of education; Dr. Homer Tolson taught me that statistics was my friend; and, Dr. Jim Kracht asked the probing questions that ensured never losing sight of the education of children.

The journey has taught me that your friends stick with you even when you are stuck in a book; your friends believe in you even when you do not have the strength to believe in yourself; and, even though you think you know a lot, you do not know everything! Thank you, friends.

Special thanks to my parents who always told me, “Be yourself” and “Do your best.”

My children have been a constant source of hope and inspiration. Gregory challenged my thinking and brought snacks. Andrew unselfishly helped no matter what the request. Julianne and her husband Reid gave me the greatest gift during the writing of this dissertation—Emily Taylor—who reminds me each day why this work is important—all children whose education is of utmost importance.

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CHAPTER I

INTRODUCTION

What will it take to lead the schools of the twenty-first century, schools facing not only high stakes accountability and increasing demands for results but also tumultuous times politically, socially, and economically? American educators face a troubling paradox; our focus on educating all children promises to guarantee all children equal access to academic achievement, and the fact that we have the knowledge to accomplish that goal but have not done so. Our collective knowledge about teaching and learning far exceeds the knowledge of any previous time in the history of public education, yet the struggle continues to reform schools to meet the challenges set forth by America 2000 Goals (1994), which formed the centerpiece for education reform in both the Bush and Clinton Administrations. The goals serve as a means to measure the output of our educational systems throughout America allowing the federal government a new role in its support for education, mainly to promote a comprehensive and systemic approach toward the success of all students.

The year 2000 has come and gone and student achievement expectations continue to rise with increasing accountability through the “No Child Left Behind” legislation. The goal of leaving no child behind sits waiting and demands attention.

The style and format for this dissertation follow that of *The Journal of Educational Research*.

Within our public school systems, isolated instances of improvement coexist amid a sea of mediocrity. How will we ever reach the mark? According to Block (1993):

We need to stop asking ‘how?’ We now have all the knowledge, the skills, the methods, the tools, the capacity, and the freedom to do whatever is required to serve all students well. All that is needed is the will and courage to choose and to move on. (p.190)

If we know what to do and how to do it, what continues to prevent the realization of quality student achievement for all children? The pressure to answer this question continues daily as both the public and state and national legislators demand an accounting of the performance of teachers and administrators responsible for educating the nation’s children.

National initiatives to reform and restructure education abound including efforts to raise the rigor and alignment of curriculum, increase teacher competency, and improve school climate and culture. However, as Arcaro (1995) points out, these efforts do not look at education as a system, and “only by improving the entire educational system can education professionals make the improvements demanded by society” (p. 26). Leonard (1996) also contends that, “the American education system is in need of transformation, and transformation implies a change in state” (p. 2). Dobyns and Crawford-Mason (1994) further clarify this transformation as a shift from “quantity to quality thinking” (p. 171).

Transformation leading to quality organizations must emerge from leaders who can inspire and empower others through a focused vision and clearly articulated strategic objectives. As Deming (1994) viewed it, “The job of a leader is to accomplish transformation of his [her] organization. He [she] possesses knowledge, personality, and persuasive power” (p. 116). Two of Deming’s Fourteen Points speak directly to the role of the leader in developing a quality system; create constancy of purpose toward continuous improvement (point one), and adopt and institute leadership and get leaders to take responsibility for quality (point seven).

The responsibility for transforming our schools and systems of schools from mediocrity to quality falls on senior leadership, primarily the superintendent but not without the collaboration of campus senior leadership, the principal. These leaders are “essential players in initiating and maintaining the transformation process required to build Schools of Quality” (Bonstingl, 2001 p. 45).

Leadership plays an integral role in the interrelated correlates of effective schools. The correlates evolved from the effective schools research (Edmonds, 1982; Lezotte, 1992, 1997, 2000; Lezotte and Pepperl, 1999, 2001) that continues to support the relationship between these quality indicators and positive effects on student achievement. In addition to strong instructional leadership, effective schools maintain a clear and focused mission within a safe and orderly environment that provides ample opportunity for learning monitored by teachers and administrators with high expectations and the support of parents and the community.

The teachers in these schools possess not only the skills to address student learning outcomes but also the belief that every child can and will learn, and that they have the ability to influence student success—teacher efficacy. An extension of personal teacher efficacy, teachers' collective efficacy within an organization has an impact on student achievement (Bandura, 1997; Goddard, Hoy and Hoy, 2000). Collective teacher efficacy emerges from teachers' personal efficacy and the organizational environment (Bandura, 1995). The responsibility for setting the environment for teaching and learning resides in the hands of key leaders who recognize that the system in place must have a purpose and an aim guided by data-driven decisions with clear processes and procedures that value all stakeholders in order to achieve results (Deming, 1994).

Systemic and integrative thinking requires a framework that will facilitate the transformation from quantity—teaching all students—to quality—learning for each student. The National Baldrige Quality Award Education Criteria for Performance Excellence (National Institute of Standards and Technology, 2002b) has the potential for providing a framework by which schools and systems of schools can utilize an aligned approach to organizational management that will lead to:

- Delivery of ever-improving value to students and stakeholders, contributing to improved education quality;
- Improvement of overall organizational effectiveness and capabilities;
- Organizational and personal learning. (p. 1)

The leadership category of the Baldrige Criteria directly addresses how senior leaders guide the organization in creating vision, setting goals, performance expectations, and how leaders maintain responsibility to the public for good citizenship practices including effective community relations.

Arcaro (1995) recommends that schools use the Criteria to meet their strategic aims and lists numerous benefits resulting in its implementation, including: a culture focused on meeting needs of students; staff that is involved, informed and focused on student achievement; creation of better learning and working environments; and the recognition by community, staff, and students of education improvements. As with all good things, the risk exists that leaders will misuse and abuse the Criteria resulting in moving the Baldrige Criteria “from serving as the framework for an award and recognition effort to being an instrument of coercion and compliance” (Block, 1993, p.190). At its best, the Baldrige framework offers a practical, open-ended approach for developing, deploying, and sustaining school systems focused on the most important role of schools—student success.

Statement of Problem

Collective teacher efficacy as one key element in realizing academic achievement for students depends on the presence of a supportive environment attentive to the collaboration, development, and professional growth of teachers. Districts must have a model to guide the design and implementation of an aligned and integrated management system. Many school improvement efforts fail not for lack of strategies or commitment but inconsistent and random implementation without

consideration of the interrelationship of each initiative within the school system. Few educational organizations have examined the level of alignment/misalignment within the organization or its effect on the work of teachers who directly influence student achievement. Consequently, the impact of a systemic approach to managing and improving schools on collective teacher efficacy with concomitant influence on student achievement is not known. As a model for quality, integration, and alignment, a need exists to explore the extent to which implementation of the Baldrige Education Criteria for Performance Excellence as an integrated and systemic management system can influence collective teacher efficacy.

Purpose of the Study

The purpose of this study was to identify those elements of the Baldrige Education Criteria for Performance Excellence that central office leaders, principals, and teachers perceive as having an impact on collective teacher efficacy. The study determined if there was a relationship between the perceptions of central office leaders, principals, and teachers concerning the implementation of the Criteria, the difficulty of implementation, and the impact of implementation on collective teacher efficacy.

Research Questions

This study sought to answer the following questions:

1. What are the perceptions of central office leaders, principals, and teachers of the extent of implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy?
2. Do differences exist within each district between/among and within panel groups (central office leaders, principals, and teachers) in the perceptions of the extent of the implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy?
3. What similarities and differences exist between/among districts in regard to the level of difficulty in implementing the Criteria and the impact of the implementation of the Criteria on collective teacher efficacy?
4. What is the relationship between the perceptions of the extent of implementation of the Baldrige Education Criteria for Performance Excellence and the impact of the implementation of the Criteria on collective teacher efficacy?

Operational Definitions

Baldrige Education Criteria for Performance Excellence: A set of criteria designed by the Baldrige National Quality Program to assist organizations in developing an integrated approach to organizational performance management. The United States Department of Commerce oversees the Baldrige Quality Program and the Award.

Collective Teacher Efficacy: The perceptions of teachers that their efforts as a whole will have a positive effect on student achievement.

Central Office Leaders: The school district superintendent and district-level instructional administrators.

Extent: This term refers to the degree of implementation.

Level of Difficulty: This term refers to the complexity and effort required for implementation.

Impact: This term refers to the positive or negative influence on a given construct.

Assumptions

For the purpose of this study, the researcher maintained the following assumptions:

1. Respondents to the survey understood the survey instrument, possessed the ability to self-report, and provided their perceptions as accurately as possible.

2. The survey instrument used in this study measured the extent and difficulty of implementation of the Baldrige Performance Excellence Criteria for Education and the perceptions of the impact of implementation on collective teacher efficacy.
3. The Baldrige Education Criteria for Performance Excellence provided a framework that effectively reflects organizational performance.
4. The interpretations in this study accurately reflected the perceptions intended by those who were surveyed.

Limitations

The researcher has identified the following limitations:

1. The scope of this study is limited to three school districts from the states of Texas, North Carolina, and New Mexico, who have implemented the Baldrige Education Criteria for Performance Excellence for a minimum of five years.
2. This study is based on the perceptions of the panelists responding to the survey.

Significance of the Study

School reform efforts have permeated both educational and political discussions for well over fifty years. The fact that these discussions remain alive and well indicates that while many examples of effective schools and successful students dot the educational landscape, they remain anomalies rather than the norm in public education. The capacity of public schools to meet the diverse needs of all students

rests on the ability and willingness of educational leaders to design and manage systems that yield very specific, equitable, and non-negotiable results for all students.

District leaders, teachers, and staff already work as hard as they can to meet the challenges of educating a diverse student population. Many district leaders can point to multiple examples of successful programs and initiatives within the system. However, when faced with the question, “how do you know what works and why, or what’s the best way to sustain and expand successful practices, their dedication and hard work far exceed their ability to offer definitive answers” (Siegel, 1997 p.12). Siegel (1997) identifies the reason as a result of random acts of improvement rather than the implementation of a focused strategy that yields aligned acts of improvement.

Our teachers are our line workers who directly influence student achievement. With this at the forefront, raising collective teacher efficacy becomes an important task of the school system. The Baldrige Education Criteria for Performance Excellence provides a framework that facilitates the development of aligned acts of improvement directed at the aim and purpose of the educational system—student achievement.

A growing body of research has begun to point to two important factors: the critical link between collective teacher efficacy and student achievement (Bandura, 1995, 1997; Goddard, Hoy and Hoy, 2000), and the link between aligned, systemic, and focused organizations (Arcaro, 1995; Bonstingl, 2001; Evans and Dean, 2003; Fields, 1994; Frazier, 1997; Lezotte, 1992; Marton, 1999; Schmoker and Wilson, 1993; Warwick, 1995) and student achievement. To date, no comprehensive study

links the implementation of an integrated management system, which plays a crucial role in establishing the environment in which teachers work, and the collective teacher efficacy of the district.

This study may provide district leaders important insights and a model that demonstrates the implementation of Baldrige education Criteria items that have the greatest potential to significantly impact collective teacher efficacy.

Contents of the Dissertation

This dissertation includes five chapters. Chapter I contains the introduction, a statement of the problem, the purpose of the study, the research questions, the operational definitions, assumptions, limitations, and significance of the study. Chapter II offers a review of the literature related to school reform and accountability, the Effective Schools Movement, Total Quality Management, the role of leadership, collective teacher efficacy, and the Baldrige Education Criteria for Performance Excellence. The methodology, including the population, instrumentation, data collection procedures and data analysis is described in Chapter III. Chapter IV addresses the analyses of the data and the findings derived from analyses, and Chapter V provides the researcher's conclusions and recommendations.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

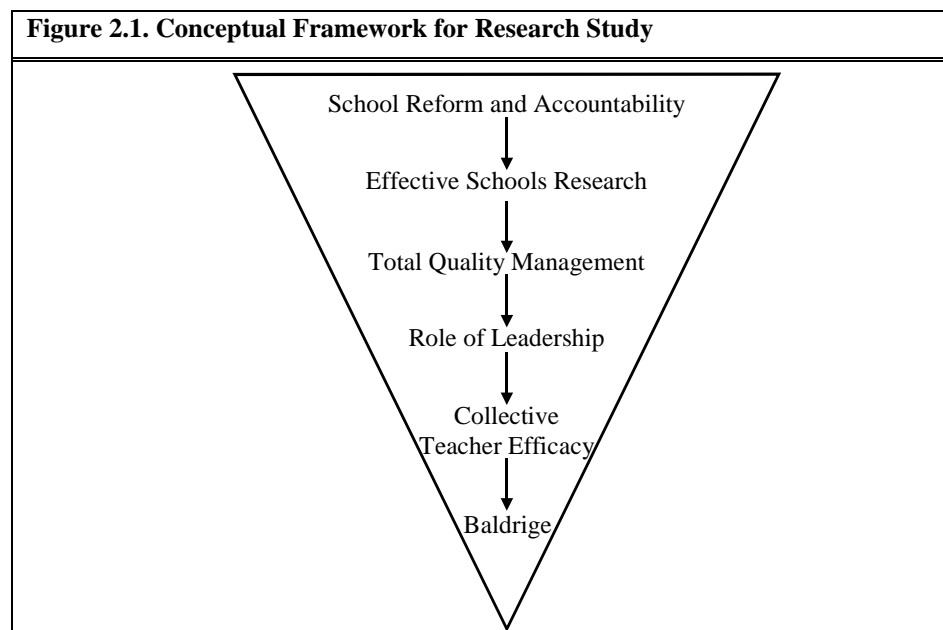
The purpose of this research was to identify those elements of the Baldrige Education Criteria for Performance Excellence that central office leaders, principals, and teachers perceive as having an impact on collective teacher efficacy. Further, the study sought to determine if there was a relationship between the perceptions of central office leaders, principals, and teachers concerning the implementation of the Criteria, the difficulty of implementation, and the impact of implementation on collective teacher efficacy.

The underlying premise of the Criteria is that organizational management practices and performance have a systemic impact on the organization and the organization's stakeholders. Research supports that high performing organizations achieve success as a result of making a commitment to quality processes, maintaining a constancy of purpose and vision, monitoring the implementation of processes, and sustaining progress over time by collecting and analyzing data on the results of the organization (Arcaro, 1995; Bonstingl, 2001; Deming, 1994; Evans and Dean, 2003; Fields, 1994; Frazier, 1997; Lezotte, 1992; Marton, 1999; Schmoker and Wilson, 1993; Warwick, 1995). The Baldrige Criteria for Performance Excellence provide a framework for assessing current practice and developing an integrated approach to organizational performance management.

The business sector has benefited from the implementation of the Criteria since its inception in the mid 1980s. While the field of education, which has a long history of educational reform movements, has begun to embrace the systems perspective reflected in the core values and categories of the Criteria, limited research has emerged related to the impact of the implementation of an integrated management system on the core purpose of education—teaching and learning.

The literature review for this study follows a conceptual framework (Figure 2.1) that begins with an examination of the historical context of educational reform and accountability. The lack of significant progress in reform efforts and criticism of education provided the catalyst for the Effective Schools Research, which sought to identify the characteristics of schools where all children achieved academic success resulting in the Correlates of Effective Schools. In addition to the Correlates, educators began to explore the concepts of Total Quality Management (TQM) and the Deming Philosophy of Profound Knowledge in relation to public schools. Deming's Philosophy and TQM stress the importance of the role of the leader in an organization. The impact of leadership, primarily the principal, on the personal efficacy of teachers has received considerable attention in the research (Ashton and Webb, 1986; Barton, 1999; Cheng, 1996; Kipp, 1996; Ross, Cousins, and Gadalla, 1996; Tschannen-Moran, Hoy and Hoy, 1998); however, emerging research on collective efficacy (Bandura, 2000, 1997; Goddard, 2003, 2002a, 2002b, 2000; Goddard, Hoy and Hoy, 2000; Hoy, Sweetland, Smith, 2002) suggests a strong correlation between the collective efficacy of classroom teachers and student achievement. The environmental contexts at both the campus and district level remain important variables to the collective efficacy of teachers. Finally,

this study chose to focus specifically on the Baldrige Criteria as a framework that could best support the development of integrated management systems in education that would address two of the primary targets of educational reform—the efficient and effective management of schools and academic achievement of all students.



School Reform and Accountability

The call for reform in American public education has a history that spans from today to the very beginning of the goal to educate the populace as a prerequisite for maintaining and cultivating a democratic society. How we choose to view this phenomenon impacts how we choose to address the fact that public schools have changed little since the 1970s (Schlechty, 2001a; Bacharach, 1990) and that “the pace of public school change and improvement has been slow, so slow that increasing numbers of serious men and women have begun to doubt that real improvement in the

American system of education is likely” (Schlechty, 2001a, p. 3). Rather than considering the success or failure of reform, Duffy, Rogerson, and Blick (2000) suggest that an historical context provides a “circle of ideas” that have the potential to expand revealing new ideas that can guide and transform our thinking about school improvement.

Duffy et al. (2000) trace school reform from the early years of the twentieth century. The period from 1900 to the 1950s significantly shaped public education as we know it today and was represented by reformers known as administrative progressives who sought to use science as a means to reorganize schools based on “efficiency, equity, accountability, and expertise” (p. 42). The reorganization of schools included placing urban schools under school boards and superintendents, consolidating rural schools and thus abandoning the one-room schoolhouse, developing curriculum to direct the work of teachers, and replacing the local policy with the expertise and authority of the science of education.

The launching of *Sputnik* in 1957 gave rise to increased concern, doubt, and speculation about the effectiveness and quality of American schools because the blame for the failure to beat the Soviets in the space race fell squarely on American public schools (Duffy et al., 2000; DuFour, 1998). This “doubt formed the root of what became known as the educational reform movement” (Duffy et al., 2000, p. 43). As a result, the National Defense Education Act of 1958 provided funding for science and mathematics education as well as guidance and counseling, media centers and libraries, and programs for the disadvantaged (Bacharach, 1990). Besides curricular

reform, another shift occurred toward more democratic schools by involving teachers in the decision making processes of schools supported by the research and concepts of social psychology and group dynamics.

The 1960s and 1970s witnessed major changes resulting from the Civil Rights Movement and the *Brown v. Board of Education* desegregation case. For the first time, special interest groups demanded recognition and response of specific student needs redefining how and for whom public education would serve. During this time, desegregation began, as did bilingual education, ethnic curricula, special education, decentralization of decision making, expanded courses providing student choice, and the increased role of the federal and state governments. However, with these changes came no governance design for how to accomplish them so that, according to Duffy et al. (2000), “the newly mandated changes were merely grafted onto to the old structure” creating “larger, more complex, and fragmented bureaucracies” (p. 44). John Meyer (1980 in Duffy et al., 2000) referred to this as “fragmented centralization.” In other words, “everybody and nobody was in charge of public education, with the result being that educational leaders—the insiders—lost their sense of control over schooling” (p. 44).

The 1980s heralded a cry for “back to the basics” fueled by the release in April of 1983 of the National Commission on Excellence in Education report, *A Nation at Risk: The Imperative for Educational Reform* that painted a desolate and grim landscape of American public schools. Indeed, the nation stood in grave peril as the report contends:

Our nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world...The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a nation and as a people...If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war...We have, in effect, been committing an act of unthinking, unilateral educational disarmament. (p. 5)

An unprecedented number of school improvement initiatives surfaced to address the deficiencies proclaimed in *A Nation at Risk*. Thus, the Excellence Movement focused on raising the quality of learning through “traditional subjects, higher standards, a longer school year and longer school days, and increased evaluation of teachers” (Duffy et al., 2000, p. 45).

DuFour (1998) points out that while the Excellence Movement offered a “consistent direction for reform,” it did not offer a “new direction.” It simply called for more and “an intensification of existing practices...no new ideas” (p. 3). The intense nature and “top-down change directives” produced “faster-than-expected implementation,” but it “did not result in improvements in the nature of schooling and created only minimal improvements in student performance” (Duffy et al., 2000, p. 45).

President George Bush called the nation’s governors to a summit on education in 1989, and from that meeting emerged *Goals 2000*. Congress created the National Education Standards and Improvement Council in 1994 to endorse the development of state and national standards. In addition, several key pieces of legislation sought to encourage and support school improvement, Goals 2000: Educate America Act,

Improving America's Schools Act, and The Obey-Porter Comprehensive School Reform Demonstration Program (CSRDP).

At the same time that top-down legislation aimed at improving schools materialized, a second movement focused on improvement by restructuring schools. Duffy et al. (2000) note that while no single strategy for redesign or restructuring exists, two main strategies dominate site-based management and schools of choice. However, as we move into the twenty-first century, even these two promising practices have not proven to yield the results intended.

The freedom and shared decision-making of site-based management does not always lead to school improvement and is often fraught with obstacles such as lack of training of teachers in the decision making process, members appointed by the building principal, and resistance from central office. The most serious flaw lies in the shallow and peripheral issues on which many site-based teams focus (Duffy et al., 2000; DuFour 1998). In spite of these difficulties, site-based management does remain an important and necessary component to school improvement, but as Duffy et al. (2000) conclude, "it is insufficient by itself for producing system wide change because it creates pockets or islands of excellence within a school system and does not improve the entire system" (p. 51). The second broad category of restructuring, schools of choice or charter schools, while rewarding innovation and unique ways to address the needs of students, also has the potential to create excellence only on selected campuses without the ability to impact improvement of entire school systems.

Reform and Accountability

As educators continue to struggle with school reform confronted by harsh critics from inside and outside of education, the course for education reform has taken a decisive turn. The reauthorization of the Elementary and Secondary Education Act (No Child Left Behind) “defines the federal role in education” and “is the most sweeping reform of the federal role in education since ESEA was passed in 1965” (Paige, 2002, p. 708). This new legislation demands results and accountability for student learning.

Many of the accountability requirements of No Child Left Behind already existed in the 1994 reauthorization of ESEA. States were required to develop assessment systems but left to decide how to handle low-performing schools and districts, but now states must demonstrate that students have made adequate yearly progress disaggregating the data by race, ethnicity, gender, English proficiency, and other factors. The 1994 act only required testing students throughout their schooling three times in math and reading; by 2005-2006, states must test students performance in reading and math from grades three through eight and once more in grades 10 through 12 (Hardy, 2002).

The bill has been received with mixed reviews and considerable angst. For many states the changes are monumental, not only in meeting the mandated requirements but also in facing our beliefs about student achievement. The law forces exposure of achievement gaps making it impossible to ignore the fact that many children of color and poverty struggle academically in school systems that continue to ignore them. “The message is clear: You no longer will be judged a successful

school system unless you successfully teach all kinds of students” (Jerald and Haycock, 2002, p. 1)

This level and scope of accountability comes as no surprise to many educators, including those in Texas where districts and schools have been held accountable for an increasing number of student groups in increasing numbers of subject areas since the inception of state testing in 1984. In a study of high-performing Texas school districts conducted by the Dana Center at the University of Texas at Austin during the 1997 –1998 school year, researchers (Ragland, Asera, and Johnson, 1998) discovered three recurring themes that describe the leadership dimensions found in these schools.

The first theme, *urgency*, involved establishing trust within the district and in the community, using data and goals to create a sense of urgency, and maintaining strong relationships between the superintendent and the school board. The second theme centered on shared *responsibility* for academic achievement through goals and clear expectations for principals, a reduction of distractions that divert the attention of principals and teachers, and a balance between flexibility and accountability. The final theme of *efficacy* sought to align resources and structure support by changing the role of the district office, creating structures to support the learning of educators, providing resources to support improvement plans, and supporting schools in making research-based, data-driven decisions.

The Educational Research Service released the School District Effectiveness Study (SDES) in May 2001. This study identified key factors impacting high student achievement in districts that might typically have serious deficits in student

achievement. One of the most significant findings revealed, “that for districts to develop a system of schools in which each performs at high levels requires a district wide restructuring” (Cawelti, 2001, p. 31). Of the 80 districts examined in the SDES, six received two-day visits; and of the six, three districts were included in the Dana Center research. Cawelti (2001) reports that SDES researchers identified common elements for transforming districts into high-performing systems:

1. Districts have to go beyond the rhetoric of “all students can learn” by developing programs, policies, and teaching strategies that lead to higher levels of achievement.
2. The district must decentralize management, including budgeting, to the building level, link individuals to results, and establish teams to monitor performance data and plan for improvements. (p.34)

Changing the Course of School Reform

Based on the history of reform, the question arises whether the new mandates of No Child Left Behind will once again be grafted onto existing mandates within overburdened systems creating ever-expanding fragmented bureaucracies. The poor results of prior reform efforts underscore the need to examine the structure and organization of schools. The factory model of the early twentieth century has long outlived its usefulness in meeting the needs of students in the ever-changing and complex society of today and the future. Simply stated, “If education continues to do what it is doing, schools will continue to produce what they are producing, no matter how hard they work at it” (Langford and Cleary, 1995, p. 7).

The failure to make significant progress in the quality of schooling for America's children may in part lie in our piecemeal approach toward improvement and our failure to view education "as a system that can be improved rather than as a series of unrelated subsystems that just happen to occupy the same general space" (Langford and Cleary 1995, p. 18). Until public education focuses on a shift to quality thinking, neither commission reports nor legislation will bring about changes in schools systems (Dobyns and Crawford-Mason, 1994). Without transforming public education systems, accountability and assessment become little more than inspection mechanisms. "Inspection doesn't produce quality; testing doesn't produce education" (Dobyns and Crawford-Mason, 1994, p. 171).

Most change efforts have focused at the classroom or campus level without consideration of the system in which they exist as interrelated and interconnected components. Frazier (1997) cites Lewis Rhodes who states, "if we want more permanent, pervasive changes in the work processes of schooling, the school district is the minimum unit of change" (p. 57). "Successful transformation requires that the entire system share a common vision, and then develop some very specific strategies to coordinate alignment up and down the organization" (Frazier, 1997, p. 57).

Effective Schools Movement

Lawrence W. Lezotte (1997), one of the early researchers in the Effective Schools Movement and a leading spokesperson for Effective Schools today, charges that "right now, the aim of the current public school system is *compulsory schooling*. For many, maybe even most students, this compulsory schooling mission does

translate into learning. *But this is certainly not true for all students*” (p. 3). What should be the aim of public education? Learning for All, Whatever It Takes! Lezotte argues that this mission no longer makes learning optional so that “we are now talking about compulsory learning and will no longer settle for compulsory schooling” (p. 4).

History of the Effective Schools Research

Following the passage of the Civil Rights Act of 1964, Congress funded a national survey to assess the equality of educational opportunity in public schools. This study, commonly referred to as the Coleman report (Coleman, Campbell, Hobson, McPartland, Mood, Weinfield, and York, 1966), stated “schools bring little influence to bear on a child’s achievement that is independent of his background and general social context” (p. 325). The study advanced the belief that family background, not schools, had the greatest impact on student achievement.

The Effective Schools Research sought to challenge this view of student capability that would, in effect, exonerate educators from the responsibility of educating all children. What emerged from the research (Brookover and Lezotte, 1979; Edmonds, 1979; Rutter, Maughan, Mortimer, Ouston, and Smith, 1979; Weber, 1971) was not only resounding proof that schools can and do make a difference in the educational lives of children but also the thesis that as Edmonds (1979) poignantly states, “all children are eminently educable and that the behavior of the school is critical in determining the quality of that education” (p. 20).

An essential finding of the research on effective schools centers on the fact that “we can, whenever and wherever we choose, successfully teach all children whose schooling is of interest to us” (Edmonds, 1979, p. 23). The Effective Schools Research identified key characteristics of schools that accomplish this mission of *Learning for All* supported by two underlying assumptions: (1) school improvement is endless; and (2) effective schools employ common high-yield strategies to ensure success (Lezotte, 1997). These characteristics have become known as the Correlates of Effective Schools (Table 2.1). The use of the word “correlate” emphasizes Edmonds’ (1979) belief that the characteristics of effective schools are not only related to one another but also interrelated and interdependent with all correlates present in an effective school. The correlates “represent research-based leading organizational/contextual indicators that have been shown to influence student learning” and continue to provide a foundation for school improvement and student achievement (Lezotte, 2000, p.8).

Table 2.1—Correlates of Effective Schools

| |
|---|
| <p>Safe and Orderly Environment</p> <p>Instructional Leadership</p> <p>Climate of High Expectations for Success</p> <p>Frequent Monitoring of Student Progress</p> <p>Clear and Focused Mission</p> <p>Opportunity to Learn and Student Time on Task</p> <p>Home-School Relations</p> |
|---|

When the early researchers found effective schools, they were already effective but little was known about how they got that way (Lezotte and Pepperl, 1999). This led to the study of key processes of effective schools and the development of the Effective School Improvement Process — a model for school change that pays significant attention to both quality and equity. Taylor (2002) traces the continued development and focus on the Effective Schools Research as well as the work of the National Alliance for Effective Schools (NAES). The federal Comprehensive School Reform Development Act recognized the Effective Schools Process as a key strategy for implementing school reform. “The NAES knows of more than 300 school districts in the United States alone that have carried the Effective Schools Process well since 1988” (Taylor, 2002, p. 377).

Although much of the focus in the Effective Schools Research centered on change at the campus level, Edmonds (1982) never ignored or underestimated the impact of the entire system on school improvement since some policy change can only occur at the superintendent or school board level. Chrispeels (2002) has also found in her work with school districts and the Effective Schools Process the importance of “working simultaneously at the district, school, grade (or department), and classroom levels” because “without support from the top and system coherence, individual school change efforts can be quickly undermined” (p. 382-383).

Edmonds’ (1982) early observation that “the findings from research on effective schools are accurate and efficacious” remains evident in the current use and research (p. 11). The sustained implementation of the Effective Schools Research may focus on what Lezotte and Pepperl (1999) describe as “a vision of what was

possible when it came to student learning and student achievement” and the fact that “the confluence of the effective schools research and the changing world has launched an unprecedented demand for reform of public schools” (p. 150).

Total Quality Management

Defining Quality

No single, universal, definition of quality exists. Defining quality will remain problematic because quality is both time bound and subjective and may better be thought of not so much as a word to be defined but as a belief system for “organizing people to accomplish a task or a set of tasks” (Frazier, 1997, p. 1). Juran called quality “fitness for use” and Crosby defined it as “conformance to requirements.”

A number of terms have been given to this belief system including Total Quality Management, Continuous Quality Improvement, Total Quality Control, Company-Wide Control, Quality Advancement, Statistical Process Control, Quality Management, and World-Class Manufacturing. The name is not important; what matters is what the terms describe because, as Deming points out (in Frazier, 1997), “The term Total Quality Management is counter-productive: my work is about a transformation in management and about the profound knowledge needed for the transformation” (p. 2). Regardless of the name, Marton (1999) delineates certain basic principles that permeate the quality movement:

- Sustained commitment to excellence
- Long-term view of the future

- Focus on customer satisfaction
- A continuous learning and improvement mentality
- A culture that encourages employee involvement and empowerment
- Value of teamwork among all stakeholders
- Process management and defect prevention philosophy (p. 2)

History of the Quality Movement

The concept of quality spans the history of mankind where craftsmen took pride in their workmanship and provided products and services tailored to the needs and specifications of the customer. With the development of mass production during the Industrial Revolution, the impact on quality introduced a major problem of variation in manufacturing. Frederick W. Taylor's "scientific management" sought to correct the inconsistency of products by focusing on efficiency of production by decomposing tasks and creating specialization within the factory line. Independent "quality control" departments monitored the quality of the product. This method destroyed the holistic nature of manufacturing and focused on separating good products from bad products (Evans and Dean, 2003).

When inspection at Western Electric transferred to the Bell Telephone Laboratories in the 1920s, new statistical approaches pioneered by Walter A. Shewhart, Harold Dodge, and George Edwards provided a methodology for quality control that laid the foundation for modern quality assurance in American industry (Evans and Dean, 2003). In the 1930s at the Bell telephone Laboratories, W. Edwards Deming and Shewhart collaborated, and Deming soon "recognized that a

statistically controlled management process gave the manager a newfound capacity to systematically determine when to intervene and, equally important, when to leave a process alone” (Arcaro, 1995, p. 4).

During World War II, Deming demonstrated to manufacturing plants the use of Shewhart’s statistical controls meeting the demand for high quality and efficient production of military supplies. Deming, as a private consultant, assisted the State Department in conducting a national census in Japan after World War II. Deming gave lectures on his methodology to the top industrial leaders of Japan who embraced Deming’s philosophy and “high quality” as a strategy for economic recovery following the devastation of Japan during World War II. The Japanese attributed their success to following Deming’s prescriptions, and more importantly, the Japanese leaders “concentrated on prevention; controlling the process rather than making defectives that would have to be sorted using inspection” (Cartin, 1999, p. 5).

Continuous improvement in Japanese industry and business excelled in the next twenty years, but quality in America remained stagnant as firms returned to the old methods. The United States had little incentive to improve quality in manufacturing in the midst of a thriving economy and high consumer demand for goods. However, by the 1970s and 1980s, the United States lost much of the market share to other international competitors, primarily, Japan.

The airing of the NBC white paper, “If Japan Can...Why Can’t We?” jolted American industry and ushered in the “quality revolution” in the United States. The program “introduced the 80-year-old Deming, who was virtually unknown in the United States, to corporate executives across America” (Evans and Dean, 2003, p.7).

Walton (1986) recounts how the next day Deming's phone rang off the wall with callers pleading in desperate voices for the immediate attention of Dr. Deming to save their companies from eminent demise.

Through his four-day seminars, Deming introduced American executives to his Fourteen Points, which were derived from his work in Japan; the seven deadly management diseases that emerged after studying American management; and the concept of a system of profound knowledge—appreciation of a system, theory of variation, theory of knowledge, and understanding of knowledge (Deming, 1982). According to Deming, in Latzko and Saunders (1995), “Hard work and best efforts, put forth without guidance of profound knowledge may well be the route of our ruination. There is no substitute for knowledge” (p. 34).

Another significant contributor to the quality movement, Joseph M. Juran, joined Deming in Japan in the early 1950s and like Deming, supported the beliefs of Shewhart. Juran is credited with the definition of the Pareto principle that “suggests that most effects come from relatively few causes—or 80 percent of the problem comes from 20 percent of the causes” (Fields, 1994, p. 22). Juran believes that quality must occur at two levels; it must become the mission of the whole organization as well as the mission of each individual department through a never-ending spiral of continuous improvement activities (Evans and Dean, 2003). The Quality Trilogy™ devised by Juran focuses on: quality planning, the activity of developing the products and processes required to meet customer needs; quality control, the process of evaluating, comparing, and acting on differences; and quality

improvement, the means of raising quality performance to unprecedented levels ('breakthrough') (Juran, 1989).

When questioned about his greatest achievement, Juran noted the success of the Japanese quality revolution and attributed their success to these critical factors: "top people took charge of quality; they undertook to train the entire hierarchy in how to manage quality; and, they opened up the business plan to include goals for quality" The role of leadership in the quality process remains crucial according to Juran, and leaders cannot be "too busy to lead the quality charge" nor can it be delegated (Paton, 2002, p. 2). Juran's philosophy embraced the importance of individual knowledge and skills as essential in building quality and meeting customer expectations (Arcaro, 1995).

The terms *total quality control* and *total quality management* originated from Armand V. Feigenbaum whose leadership has influenced the quality movement both in the United States and internationally. Feigenbaum emphasizes the human relations perspective in quality control focusing on the fundamental theme that "improvements in quality lead to improvements in everything else in the organization; hence quality is a way of managing" (Powell, 2001, p. 1). Fields (1994) points out several key concepts that Feigenbaum formulated in the early 1950s that have continued to shape his work:

- TQM for customer satisfaction
- Leadership of organizations
- Employee empowerment and an environment conducive to individual contributions to quality

- Statistical and technical technologies for process and quality control
- Measuring quality costs and measuring of quality as the least expensive way to continual improvement (p. 23)

Philip B. Crosby, another leading proponent of quality, contributed the concept of zero defects as a measure of quality performance. While the zero defects concept applies well to manufacturing, its application to human performance led Crosby to later realize “that perfection is impossible in human process but that perfection is something humans should continue to seek” (Fields, 1994, p. 23). Crosby identifies the Absolutes of Quality Management and the Basic Elements of Improvement as key components of the quality improvement process (see Table 2.2). The Absolutes of Quality Management answer four critical questions, (a) What is quality? (b) What system is needed to cause quality? (c) What performance standard should be used? (d) What measurement system is required? (Crosby, 1984, p. 58).

Table 2.2—The Crosby Framework

| | |
|--|--|
| Absolutes of Quality Management | |
| 1. | The definition of quality is conformance to requirements. |
| 2. | The system of quality is prevention. |
| 3. | The performance standard is zero defects |
| 4. | The measurement of quality is the price of nonconformance. |
| 5. | There is no such thing as a quality problem. |
| Basic Elements of Improvement | |
| Determination | |
| Education | |
| Implementation | |

Crosby (1984) also stresses the role of leadership in quality observing:

The credibility of the commitment is the biggest single problem for management; it has to be reinforced all the time. Management has to continually show it is in it for the long haul—forever. It is not enough to say the right words; everyone does that. (p. 57-58)

Unlike Deming and Juran, Crosby believes that changing corporate culture requires placing greater importance on management and organization processes than statistical techniques (Evans and Dean, 2003).

Total Quality Management in Education

The literature on quality management in education confirms that the strategies and processes that build quality businesses and industries can transform schools and school districts into quality learning organizations (Anderson and Davenport, 2003; Arcaro, 1995; Bonstingl, 2001; 1997; Fields, 1994, Herman and Herman, 1994; Frazier, 1997; Kaufman and Zahn, 1993; Langford and Cleary, 1995; Leonard, 1996; Lewis, 1993; Schmoker and Wilson, 1993; Warwick, 1995). The tools, processes, and philosophy of quality management “can help education professionals cope with today’s changing environment...alleviate fear and increase trust...provide a flexible infrastructure...help cope with budget and time constraints...make it easier to manage change” (Arcaro, 1995, p. 6-7). Deming’s message, as noted by William Glasser in Schmoker and Wilson (1993), may apply more to schools since much of the crisis in schools stems from management problems. Langford and Cleary (1995) see quality as a framework for “seeing schools anew” and providing “a sense of connectedness among various components of the system of education” (p. 161).

Schmoker and Wilson (1993) studied exceptional schools to explore management and discovered several overarching beliefs and practices that prevail in successful schools and districts. The most important elements of Deming's philosophy were carried over into these schools. Each of the examined schools faced situations and obstacles that many would claim as the cause of the school's failure. However, in spite of high poverty, limited community support, educationally deprived backgrounds, and often meager funds, these schools employed key quality concepts to realize success throughout the system and in student academic achievement. No two schools approached or deployed quality management in quite the same manner, but all of them possessed strong leadership commitment and support; set a clear vision bound by unity of purpose; collected, disaggregated, and analyzed data; empowered those who had the greatest impact on results; and viewed the organization from a systems thinking perspective.

Through a collection of essays focused on best practices from diverse schools, and districts, McCormick (1993) provides examples of implementation of total quality management from the perspective of varied stakeholders and offers a common language from which others can learn. Here again, although the path taken by an educational organization might vary, Deming's quality principles pervade each organization and confirm the applicability of quality in education.

Lezotte (1992) noted, "The kinship between W. Edwards Deming's 'operational philosophy of management—Total Quality Management (TQM)'—and the basic operational tenets of the effective schools movement is truly striking. Both represent a bundle of proven management principles and associated implementation

processes which, when properly implemented, result in significant improvement in valued organizational aims” (p. 5). Herman and Herman (1993) also recognized the potential use of the Effective Schools Correlates “as an organizational framework and as a viable school improvement model...that can meaningfully support the strategic planning process...and give meaning to a Total Quality Management process” (p. 49).

Lezotte (1992) integrates the tenets of effective schools with Deming’s Fourteen Points building a framework for Total Quality Management for Effective Schools that when combined with statistical process controls and “appropriately deployed in the mission of successful learning for all” will dramatically impact the quality of public education in America. “Unfortunately, most schools are currently not equipped to implement the total quality processes quickly” (p. 102). Warwick (1995) also notes, “The Deming philosophy, which is the key to meaningful change, requires self-transformation and acceptance of the truth that there is no quick fix” (p. 9).

Schools and districts that have embraced TQM and realized significant changes acknowledge as Aristotle did thousands of years ago, “Quality is not an act. It is a habit.” Siegel and Byrne (1994) investigated eleven sites and conducted over 200 interviews to examine quality as a systemic change strategy for education. Four findings emerged from the study:

1. Quality as a comprehensive, systemic change strategy is applicable to an education setting.

2. Implementing Quality in education is not a quick fix; in fact, it will be more difficult than in the private sector.
3. Business management experience and political support are critical—if not essential—resources for implementing Quality in education.
4. Before business and education leaders can use Quality together to restructure education, bridges between them need to be built. (p. 9-11)

Educational leaders interviewed by Siegel and Byrne (1994) expressed a commitment to transforming their organizations and implementing quality principles and processes recognizing the need to build an infrastructure that supports systemic reform and continuous improvement. Siegel and Byrne (1994) further iterate that quality, “by definition, is a *continuous improvement process*, which can be used by all types of organizations,” and it provides “a *systemic* focus, by offering a way for them [schools] to connect to their district administration—and vice versa” (p. 16-17).

The Future of Total Quality Management

The question arises concerning the sustainability of employing quality management as a catalyst and driver of continuous improvement toward quality services, products, or student achievement. Dahlgard (1999) analyzed the evolution of TQM arriving at this conclusion:

The history of the quality movement shows that it has been able to adapt to new circumstances continuously and in this way to be able to integrate new ideas, tools and methods. At the same time the history of the quality movement shows that it has also been able to reach a deeper level in each relevant area regarding its conceptual understanding and its implementing aspects.... As long as the quality movement is capable of renewing itself, it will continue to be a powerful management system regardless of its name,

because the renewal and evolving processes are evident proof of its power as a living human system. (p. 479)

Criticism of the quality management concepts often generalizes the loss of favor of terminology rather than the concepts themselves. Failure in initiating quality initiatives has its roots within the organization's approaches and systems of implementation rather than the viability of the concepts. "As the editor of *Quality Digest* put it: 'No TQM isn't dead. TQM failures just prove that bad management is still alive and kicking.'"

(Evans and Dean, 2003, p. 9). Evans and Dean (2003) continue by acknowledging that "the most successful organizations have found that the fundamental principles of total quality are essential to effective management practice, and continue to represent a sound approach for achieving business success" (p. 9).

Bonstingl (2001) reminds us that "Total Quality requires consistent effort by the entire team, working together toward common objectives based upon an accepted vision and mission, and using quantitative and qualitative data to measure how well the system is meeting the needs of all stakeholders inside and outside the organization" (p. 32). Through his work with district leaders, Bonstingl compiled a list of most often cited mistakes in implementing total quality management in educational organizations. He refers to them as the "Seven Stumbling Blocks in the Road to Quality" and includes:

1. Failure to set clear, achievable expectations at the outset.
2. No constancy of purpose.
3. Fixing blame, applying coercion.

4. Basing decisions on assumptions rather than data.
5. Excluding key players from meaningful participation.
6. Failure to invest in training for leadership and for staff.
7. Failure to walk the talk. (p. 56-58)

One resounding theme emanates across the literature—quality begins at the top (Arcaro, 1995; Cartin, 1999; Dahlgaard, 1999; Deming, 1994; Evans and Dean, 2003; Frazier, 1997; Johnson, Livingston, Schwartz, and Slate, 2000); Leonard, 1996; Marton, 1999; Schmoker and Wilson, 1993. Deming (1994) firmly believed that “the job of a leader is to accomplish transformation of [the] organization” and to “direct all components toward the aim of the system” (p. 116, 50). Warwick (1995) describes a conversation at a conference between Deming and a businessman who wanted to know how he could change his company. Deming asked the man what he was willing to do; the man said he would send all of his employees to Deming seminars. Deming asked again what the man would do to change. Again, the man insisted he would do anything, but Deming persisted, “What will YOU do to change?” (In Warwick, 1995, p. 65). Quality management continues to be dependent on visionary leadership and commitment.

The Role of Leadership

Quality inherently implies change and “for better or worse, change arouses emotions, and when emotions intensify, leadership is key” (Fullan, 2001, p. 1). Current styles of leadership may actually inhibit constancy of purpose and perpetuate the myth of leaders as heroes rewarded for short-term crisis management rather than

purveyors of continuous improvement rendering our leaders ineffective in leading this transformation (Leonard, 1996; Senge, 1990). Schlechty (2001a), based on his forty-year study of leadership, concludes:

The kind of leadership required to lead fundamental reform movements (transformational leadership) is very different from the kind of leadership required to make the trains run on time (transactional leadership), and it is the absence of transformational leaders, more than any other factor, that accounts for the slow pace of school reform. (p. 163)

Deming (1994) believed that effective leaders possess a system of profound knowledge that includes deep understanding of systems, variation, and psychology.

Leonard (1996) refers to the attributes of a leader that Deming often used in seminars:

- The leader understands how the work of his or her group fits into the overall aims of the organization.
- The leader focuses on the customer, both internal and external.
- The leader is coach and counsel, not a judge.
- The leader removes barriers to joy in work.
- The leader understands variation.
- The leader works to improve the system in which he or she and his or her people work.
- The leader creates trust.
- The leader forgives a mistake.
- The leader listens and learns. (p. 202-207)

Deming's list demands a great deal from leaders of quality systems, and obviously, the faint of heart and those lacking persistence as well as an understanding of people, may well find the challenge overwhelming.

Leadership Perspectives

An examination of the literature (Duffy et al., 2000; Fullan, 2000; Senge, 1990; Senge, Cambron-McCabe, Lucas, Smith, Dutton, and Kleiner, 2000; Schlechty, 2001a and 1990; Wheatley, 1994) on leadership and building quality organizations reveals recurring themes that encompass in one fashion or another Deming's key attributes. Whether in the context of business or education, certain critical attributes emerge as core characteristics of leaders who have demonstrated success in leading quality organizations.

The leader's new work, in Senge's (1990) view, calls for leaders who are "responsible for *building organizations* where people continually expand their capabilities to understand complexity, clarify vision, and improve mental models—that is, they are responsible for learning" (p. 340). Leaders of learning organizations take on three important roles: designer, steward, and teacher.

The role of a leader is seldom considered as one of a designer; one might compare it to the conductor of an orchestra. The music emanating from the orchestra has less to do with where the musicians sit, rather it hinges more on the design of the score and the ability of the conductor to inspire and transform the cacophony of sound into a harmonic melody. Leaders' first design task "concerns developing vision, values, and purpose or mission," and ultimately, the "*leaders' task is designing the learning processes* whereby people throughout the organization can deal productively with the critical issues they face..." (Senge, 1990, p. 343, 345).

In the role of steward, leaders develop a deep sense of purpose associated with their vision. This deep sense of purpose becomes their story—an explanation of the *why* shaping the vision. The leader becomes “a *steward* of the vision” (Senge, 1990).

Finally, the leaders of learning organizations take on the role of teacher. Senge (1990) cautions against having “a sense of purpose and genuine vision but little ability to foster systemic understanding,” which is essential in leading and developing learning organizations (p. 355). When faced with how to develop leaders as designers, stewards, and teachers, Senge (1990) points out that leadership is both collective and highly individual, and as a result, cannot be reduced to a set list of skills. Individuals must choose to accept the challenge of the disciplines that underscore and support these leadership roles and put their “life spirit into the task” (Senge, 1990, p. 360).

Wheatley (1994) found in her examination of the new sciences that the world of organizations would make better sense by investigating the natural world. For instance, the self-organizing characteristic of a system requires only that it remain consistent with itself and its past. The concept of self-renewing helps us understand why effective leadership only needs “simple governing principles: guiding visions, strong values, organizational beliefs—the few rules individuals can use to shape their behavior,” and the task of the leader is to “communicate them, to keep them ever-present and clear” (Wheatley, 1994, p. 133). Vision, values, and strong beliefs permeate throughout the organization at every level so that no matter where you might look, the work of individuals reflects the vision, values and purpose.

Leaders who value and understand quality have a keen sense of the importance of the people in the organization. Organizations where leaders fail to develop and foster building relationships are hollow, empty places that may indeed achieve success but at the expense and subsequent loss of the individuals instrumental in that achievement. “A different understanding of leadership has emerged,” according to Wheatley (1994); leadership is always dependent on the context, but the context is established by the relationships we value” (p.145).

Leaders in this era of heightened accountability will need a keen sense of innovation to transform organizations. Duffy et al., (2000) developed a model for redesigning America’s schools that depends on several key leadership concepts and principles that transformational leaders must possess. Transformational leadership provides the context for developing the other four levels of leadership required for effective implementation of their Knowledge Work Supervision (KWS).

Transformational leaders (Duffy et al., 2000):

- Motivate followers to work for long-term goals instead of short-term self-interest;
- Make explicit the core values that support the vision, modeling behaviors and attitudes that reflect those core values, and coaching and facilitating the development of individuals in adopting these core values;
- Develop an astute understanding on the interconnectedness of all aspects of a school system;
- Have an informal, personal style with people;
- Approach their tasks from a collaborative orientation;

- See their role as coaching and facilitating;
- Build relationships, inspire creativity and humor, demonstrate optimism, find solutions, and have a dogged persistence. (p. 188-190)

Roberts (2000), while developing a new leadership model with a study group of school superintendents, “focused on the key competencies that allow people to lead without having to control” (p. 414). The first competency, engagement, deals with the ability of the leader to assemble the right people, facilitate asking the right questions, and identify the level of tension groups can tolerate when tackling complex problems and situations.

Systems thinking, the second competency, concerns the leader’s ability to “recognize the hidden dynamics of complex systems” (Roberts, 2000, p. 415). Leaders must ask the question, “Where are the boundaries to this situation? Who are the players, and where else should we look to better understand the situation?” This systemic approach recognizes the interrelationship of processes and the people in an organization.

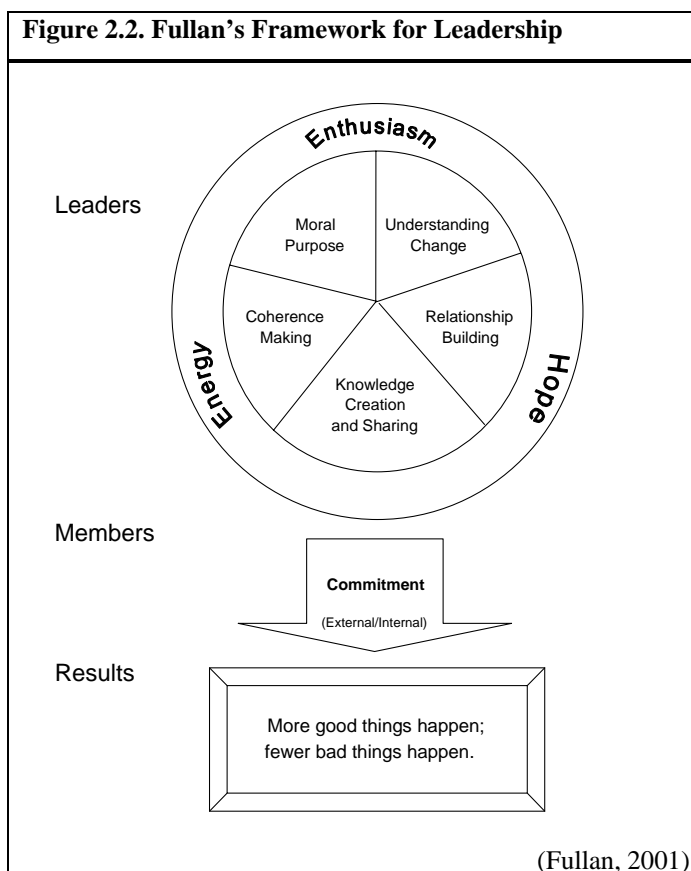
Leading learning, the third competency, models a “learner-centered,” rather than “authority-centered,” approach, where learning and the acceptance of the uncertainty that is always a part of learning are part of the culture, or the genetic code, of the system” (Roberts, 2000, p. 416). In these systems, everyone is a learner.

Finally, leaders must be self-aware and understand the impact they have in that system and how that impact may have changed over time. Self-awareness

requires time for self-reflection and possibly a personal coach who offers support and guidance in helping to understand one's strengths and values.

Fullan (2001), recognized for his study of the impact of change on individuals and organizations, offers a framework for leadership to facilitate effective change (See Figure 2.2). Fullan (2001) includes five components of leadership that support positive change forces:

Moral purpose is concerned with direction and results; understanding change, building relationships, and building knowledge honor the complexity and discovery of the journey; and coherence making extracts valuable patterns worth retaining. (p. 7-8)



Encompassing these five components, Fullan (2001) has found that effective leaders possess the personal qualities of energy, enthusiasm, and hopefulness, and leaders who remain steadfast to these core competencies enlist commitment from members of the organization which results in more good things happening and fewer bad things happening.

Schlechty (2001a) has also revisited the role of leadership in impacting transformation of educational systems and notes that significant change rarely, if ever, occurs without an identifiable and strong leader. The character of these strong leaders must be grounded in:

- Integrity;
- Persistence and constancy of purpose;
- Self-awareness and ego strength (understand who they are, not only within themselves but also to others). (p. 183-185)

While not exhaustive, this review revealed a common belief about the role of leaders in initiating and sustaining education reform leading to systemic organizations aligned and focused on quality student achievement. Leaders must be guardians of the vision; maintain a constancy of purpose; understand and demonstrate systems thinking; champion learning and joy in the work; and, within the context of managing by fact, maintain integrity and respect for complex human relationships.

Deming's voice whispers behind the scenes resounding his sense of value of human relationships in quality organizations focused on the Fourteen Points and system of profound knowledge. As in all aspects of the system, it won't be enough to just talk about what we think leaders have accomplished; can we measure the

effectiveness of leaders, and what performance indicators will keep the system and its leaders on course? Fullan's (2001) perspective may prove most effective, "...leadership in a culture of change will be judged as effective or ineffective not by who you are as a leader but by *what leadership you produce in others*" (p. 137).

Collective Teacher Efficacy

Introduction

Deming believed that quality organizations empowered the line worker; in education, that line worker is the classroom teacher. The classroom teacher has a powerful impact on the lives of children, and instructional leaders at the campus as well as the district level play an integral role in the support and development of teachers' professional growth. Teachers' belief in their individual and collective ability to make a difference in the lives of children also contributes to outcome of school reform efforts. The very nature of learning and teaching make schools a highly social and interactive endeavor. Bandura (1997) recognized the significance of collective teacher efficacy as a strong predictor of student achievement.

Hunter (1979) estimated that teachers make over five thousand decisions in the course of a single school day. These decisions encompass content, planning, classroom management, materials, instruction, and interactions with students, administrators, and parents. Teachers' ability to orchestrate these functions impacts not only student learning but also their own sense of self-efficacy. Wong and Wong (1991) describe an effective teacher as one who exhibits: (a) positive expectations for student success, (b) extremely good classroom management, and (c) ability to design

lessons for student mastery. The depth and complexity of teaching and learning suffers without these qualities and skills.

Teachers' sense of self-efficacy is a strong determinant of effective teaching. A teacher must know that she has the skills to teach this group of students, and more importantly, believe that they *can* learn. This belief as well as the level of support and pressure from external sources all impact teacher behaviors in the classroom.

Never before have our teachers faced more challenging expectations nor have the stakes been higher. "Teachers are being asked to prepare students for new assessments in every major discipline, learn and integrate technology seamlessly into the curriculum, link career and school, and do so in classes that have a wider range of student ability" (King, 1999, p. 183).

Review of Literature on Teacher Efficacy

Research in teacher efficacy draws from two different constructs developed from the work of Rotter (1966) and Bandura (1986, 1997). Rotter considered teachers' ability to control the reinforcement of their actions that was strongly related to students' motivation and performance. Teachers with high efficacy believed that they could control or at least influence student achievement. Researchers following this construct have tended to focus on the teacher's locus of control as the primary determiner of efficacy.

Based in social cognitive theory, Bandura (1986) defines efficacy as "people's judgment of their capabilities to organize and execute courses of action required to attain designated types of performances" (p. 391). Several sources influence efficacy:

mastery experiences, vicarious experiences, verbal persuasions and social influences, and physiological and affective states. In other words, “what people think, believe, and feel affects how they behave” (Bandura, 1986, p. 25).

Research in teacher efficacy began almost as an afterthought when the Rand Corporation conducted studies designed to evaluate Title III of the Elementary and Secondary Education Act projects. Researchers added two Likert Scale items: (1) “When it comes right down to it, a teacher really can’t do much because most of a student’s motivation and performance depends on his or her home environment, and (2) “If I really try hard, I can get through to even the most difficult or unmotivated students.” In this initial study and subsequent studies, the data revealed “evidence that teachers’ beliefs in their abilities to instruct students may account for individual differences in effectiveness (Armor et al., 1976; Berman and McLaughlin, 1977; Brookover et al., 1978; Brophy and Evertson, 1977)” (Gibson and Dembo, 1984, p. 569). Over the past twenty years, researchers have continued to refine, expand, and validate these early findings.

Gibson and Dembo (1984) sought to clarify and validate the construct of teacher efficacy because the construct had limited measures and had not been adequately conceptualized. Their goal consisted of: examining the dimensions of teacher efficacy and how it related to Bandura’s theory of self efficacy, the internal consistency of the teacher efficacy measures; clarifying the sources of teacher efficacy and distinguishing it from other constructs; and, using classroom observation to identify how “high-and-low efficacy teachers exhibit differential patterns of

teacher behaviors related to academic focus, feedback, and persistence in failure situations” (Gibson and Dembo, 1984, p. 570-571).

As a result of administering a 30-item Likert Scale of Teacher Efficacy, two factors emerged. Since only 16 of the thirty items provided acceptable reliability coefficients, final analyses were limited to these items. Factor 1 represented a teacher’s sense of personal teaching efficacy that related to the belief that the teacher possessed the skills to bring about student learning. Factor 2 represented a teacher’s sense of teaching efficacy, or the belief that any teacher’s ability to cause change is influenced by factors external to the teacher, such as “home environment, family background, and parental influences” (Gibson and Dembo, 1984, pp. 573-574). Two important conclusions were drawn from this study: (1) “teacher efficacy is multidimensional, consisting of at least two dimensions that correspond closely to Bandura’s two-component model of self-efficacy,” and (2) that teacher efficacy may influence “certain patterns of classroom behavior known to yield achievement gains” (p. 579).

Since the work of Gibson and Dembo (1984), researchers have continued to examine the multidimensionality of teacher efficacy. Rosenholtz and Simpson (1990) examined teacher efficacy in relation to workplace conditions and the fluctuation of teacher commitment during career stages. They posit, “A teacher’s level of felt efficacy conditions his or her response to various organizational limits and resources” (Rosenholtz and Simpson, 1990, p. 243). Their findings reflect the importance of the organization to provide a working environment that allows teacher autonomy and professional support for addressing instructional tasks. Coladarci (1992) also

explored the effect of organizational climate on teachers' sense of self-efficacy and commitment. Again, the data revealed that personal efficacy and general efficacy strongly predicted teacher commitment.

Further expanding the investigation of teacher efficacy, Rich and Smadar (1996) sought to examine teacher efficacy for student social relations using the Gibson and Dembo 16-item Teacher Efficacy Scale as a model and adding items designed to address student social relations. Their findings supported the validity of the instrument for assessing teacher efficacy in terms of student achievement, but did not successfully identify subscales parallel to the original subscales for teacher efficacy.

Several other studies more clearly articulate the role of teacher efficacy as it may relate to the impact of state-mandated curriculum and testing on classroom instruction, and hence curriculum. Soodak and Podell (1996) explored "the dimensions of the construct of teacher efficacy" and strove to "determine whether teachers' beliefs about the role of outside influences include elements other than the student's home environment" (p. 404). They also used Gibson and Dembo's 16-item scale as well as additional items designed to measure students' behavior or emotionality, the effects of heredity, and the influence of television violence. In addition, Soodak and Podell (1996) made comparisons based on teaching level and experience. Three uncorrelated factors emerged which the researchers labeled Personal Efficacy, Outcome Efficacy, and Teaching Efficacy.

The distinctions evident in the results of the Soodak and Podell (1996) study, imply that "teachers lacking in self-efficacy are unlikely to manifest the behaviors

necessary the promote student learning” (Soodak and Podell, 1996, p. 409). Just as serious is the diminishing of self-efficacy in able teachers working under conditions that thwart their efforts. Soodak and Podell conclude, “This may suggest the need to foster the development of effective teaching techniques, and simultaneously to create a supportive environment within which teachers can affect change” (p. 409).

Ross, Cousins, and Gadalla (1996) chose to investigate how teacher efficacy varied within individuals and how the between-teacher variable impacted efficacy. For teacher efficacy, they utilized the two items from the Rand studies, which continue to appear on longer scales and yield good reliability (Dembo and Gibson, 1985; Gibson and Dembo, 1984; Guskey and Passaro, 1994). Within-teacher variables included: feelings of past success, feelings of being well prepared, and student engagement. Several antecedent variables focused on demographic factors and others that might moderate the between teacher variable; namely, subject discipline, teaching experience, teaching strategies, and assessment strategies. Ross et al. (1996) note:

These results confirm, first, that within-teacher variables plausibly represent different dimensions of an underlying construct of teacher efficacy, and second, that multicollinearity among between-teacher predictors does not pose a threat to interpretations of the ensuing regression analyses. (p. 393)

Ross et al. (1996) conclude that their work suggests validity in searching for additional within-teacher factors, especially “district or state policies that have a differential effect” (p. 397).

Not only has Bandura (1997) broadened his Teacher Efficacy Scale to a 30-item 9 point Likert Scale that includes seven subscales, but Tschannen-Moran, Hoy

and Hoy (1998) propose an Integrated Model of Teacher Efficacy that weaves the teaching task and its consequences with self-perceptions of teaching competence along with new areas of research in teacher efficacy. The model extends Bandura's four sources of self-efficacy information including consideration of the role of cognitive processing to determine "how the sources of information will be weighed and how they will influence the analysis of the teaching task and the assessment of personal teaching competence" (Tschannen-Moran et al., 1998, p. 246).

Tschannen-Moran and Hoy (2001) developed a new measure of teacher efficacy, the *Ohio State Teacher Efficacy Scale (OSTES)* to further clarify the construct of teacher efficacy. The instrument correlated with previous measures of personal teaching efficacy while capturing more specific dimensions of efficacy: instructional strategies, student engagement, and classroom management.

Tschannen-Moran and Hoy (2001) conclude that the OTES surpasses previous measures of teacher efficacy because:

It has a unified and stable factor structure and assesses a broad range of capabilities that teachers consider important to good teaching, without being so specific as to render it useless for comparisons of teachers across contexts, levels, and subjects (p. 801-802).

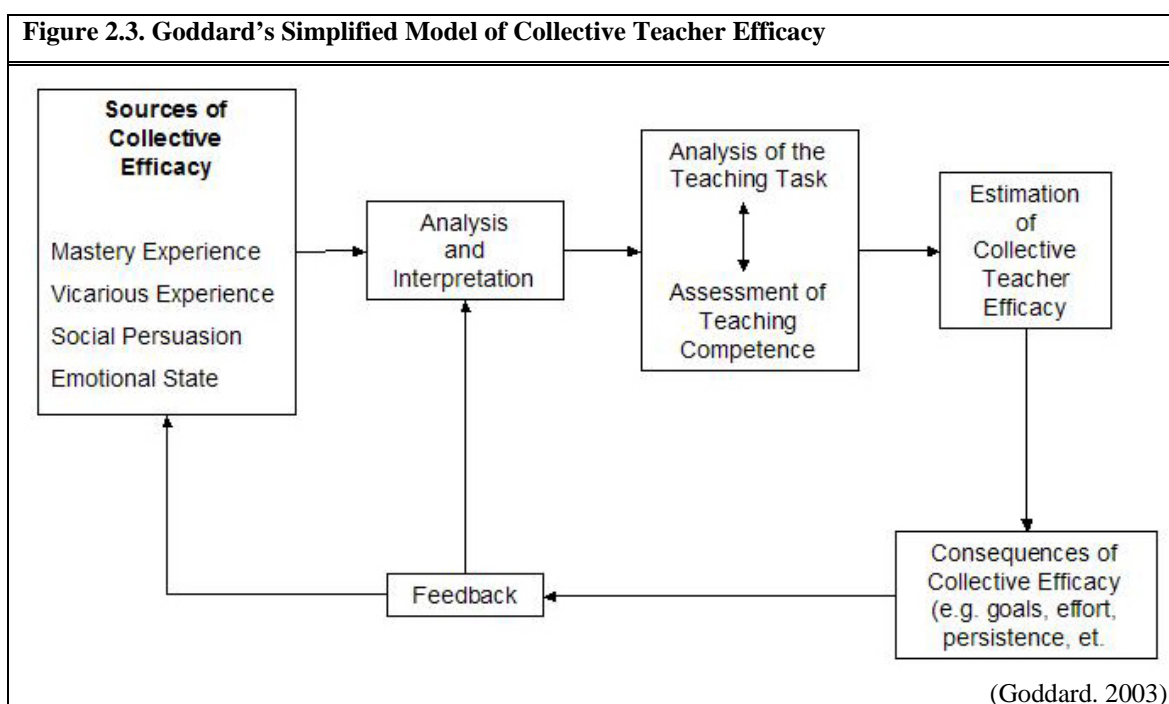
The study of teacher efficacy continues to refine the development of more consistent measures and yield results that "provide considerable explanation for the positive link between teacher efficacy and student achievement" (Goddard, 2003, p. 2). Researchers (Ashton and Webb, 1986; Chester and Beaudin, 1996; Hipp, 1996, Johnson et al., 2000) have also considered the impact of organizational climate and culture on teacher efficacy. Johnson et al. (2000), in their examination of effective

schools, recognized “the importance of having a supportive and caring school climate” and that “a belief that all children can learn, along with teachers and school leaders who demonstrate that belief through their behavior, can result in improved student achievement” (p. 346). Ashton and Webb (1986) examined the relation between school structure and teacher efficacy, finding that teachers working within the middle school structure and philosophy maintained a stronger sense of satisfaction and efficacy than teachers in traditional junior high schools. The importance of collaboration and guidance for new teachers increases their sense of efficacy (Chester and Beaudin, 1996). Hipp (1996) noted the contribution of principal leadership and school environment on teacher efficacy and warns “if school leaders continue to ignore teachers’ sense of efficacy and environmental conditions affecting their work, then committed young teachers, as well as experienced teachers, will begin to question their potential to affect change in student behavior” (p. 31).

Collective Teacher Efficacy

Teaching may take place in individual classrooms, but teaching also occurs in a social or group context. Tschannen-Moran et al. (1998) suggest, “The problems teachers face require that they work together as a collective to change the lives of students” and “social context of the school is important” (p. 241). Like personal efficacy, collective efficacy concerns perceptions of competency including “the groups’ shared belief in its conjoint capabilities to organize and execute courses of action required to produce given levels of attainments” (Bandura, 1997, p. 477). Goddard, et al. (2000) describe collective efficacy as a construct “measuring teachers’ beliefs about the collective (not

individual) capability of a faculty to influence student achievement” (p. 486), and suggest that collective efficacy develops based on teachers’ analysis of the interaction of teaching tasks and the assessment of teaching competence. Figure 2.3 illustrates the simplified model of collective efficacy (Goddard et al., 2000) that was adapted from the teacher efficacy model of Tschannen-Moran et al. (1998).



While individual and collective efficacy represents two distinct constructs (Goddard, 2003), the constructs share a social cognitive theoretical base. Social cognitive theory encompasses the concept of agency, the ways people exercise control over their lives. Human agency assumes that people are more likely to pursue goals that are important and relevant to them. Likewise, organizational agency refers to an organization’s “intentional pursuit of a course of action” (p. 6).

However, Goddard (2000) proposes that understanding the difference between efficacy beliefs and outcome expectancies clarifies the role of efficacy beliefs on individual or organizational agency. Efficacy, as mentioned earlier, concerns beliefs about the ability to affect outcomes, and outcome expectancies relate to the ability to perform specific skills or strategies that can affect outcomes such as student achievement. The distinction between efficacy and outcome expectancies emphasizes the difference between a belief in the ability to impact student learning by making choices among appropriate instructional strategies and designs, and the belief that the implementation of one model of teaching will impact student achievement.

To measure collective efficacy, researchers have used the group-level aggregate of individual perceptions of collective efficacy of the group finding that collective efficacy positively predicts the dependent variables under study (Goddard, 2002a). Bandura (1986) also stressed the relation of the task and its context suggesting that measures of efficacy should address the setting in which administration takes place. While collective efficacy has been measured in other contexts, such as sports, manufacturing, and business, each venue requires measures specific to the task reflected in those settings.

This 21-item scale was later revised to a 12-item scale that reflects a balance between the two categories providing a more parsimonious measure and, after conducting validity tests, strongly related to the original scale.

Collective efficacy becomes a critical factor when considering the organizational climate and culture of schools faced with high-stakes accountability measures. Bandura (1997) has found “the stronger the beliefs people hold about their

collective capabilities, the more they achieve” (p. 480). Therefore, teachers’ collective efficacy beliefs become a powerful contributor to the school environment influencing individual teacher performance and ultimately student achievement.

Goddard, et al. (2000) also note Bandura’s (1997) theory of triadic reciprocal causation as a rationale for the relationship between collective teacher efficacy and student achievement such that:

Collective efficacy beliefs influence the level of effort and persistence that individual teachers put forth into their daily work. Therefore, one way for school administrators to improve student achievement is by working to raise the collective efficacy beliefs of their faculties. (p. 502)

Recent studies attest to the impact of collective efficacy on student achievement finding that schools in which teachers share strong collective beliefs concerning instructional efficacy demonstrated increased student academic performance (Hoy, et al., 2002; Goddard and Goddard, 2001; Goddard et al., 2000; Bandura, 1993).

Through a meta-analysis on efficacy, Enderlin-Lampe (1997) found that teacher efficacy greatly affects the teacher-student relationship and lies at the heart of school reform and meaningful change. Based on the evidence of the link between personal efficacy and collective efficacy, consideration should be given to the role of efficacy in bringing about not only personal change but also organizational change. Goddard (2000) concludes, as a result of recent studies, “School culture influences members strongly by setting expectations for action governed by thinking about group capability. Collective efficacy clearly shapes teachers’ self-referent thought and the control work groups exert over their circumstances” (p. 24).

Although perceived collective efficacy provides a mechanism for understanding how organizations function, researchers have not brought forth a description of how efficacious and inefficacious organizations differ or what processes impact the development of collective efficacy, or the relationship between change efforts (Goddard 2003, 2002a, 2001; Hoy et al., 2002; Tschannen-Moran et al., 1998; Weasmer and Woods, 1998; Bandura, 1997; Enderlin-Lampe, 1997). As a component of the organization, the research also remains silent concerning the sustainability of collective efficacy during times of change, or even if it is a necessary element for organizational change and innovation. The literature also fails to address how empowerment initiatives and decision-making structures might influence the development of efficacious groups.

Much of the focus on collective efficacy has centered at the campus level without consideration of the influence of district organizational culture. However, collective efficacy may transcend the campus with its most powerful impact emanating from the organization as a system. Accountability of each campus is nested within the accountability of the school district, so that as a system, the interrelationship between and among campuses and district-level operations has serious implications for organizational culture at all levels. Schlechty (2001b) responds to the critics of the role of district level offices and their often large-scale bureaucracies by noting that only through “revitalizing and redirecting the action of district-level operations can the kind of wide-spread and radical change that must occur become possible” (p. 362). Furthermore, if changes are to occur, “those who lead must come to understand that to change schools and what occurs in classrooms,

reformers must first introduce the changes needed to enhance the capacity of the educational system to support and sustain change in the schools” (p. 364).

Baldrige Education Criteria for Performance Excellence

One of the most successful reform movements emanated from the Effective Schools Research, which focused primarily at the campus or school level identifying common high-yield strategies and seven areas or correlates effective schools addressed to effect change. The Effective Schools Correlates have provided direction for individual schools and can be applied at the district level; however, school systems need a tool to address systemic organizational management. The improvements demanded by society require improving the entire educational system, and the Baldrige Criteria has the potential “to unite the components of education into a cohesive system that focuses on continuous improvement” (Acaro, 1995, p. 26).

Several important commonalities exist between the Correlates and the Baldrige Criteria giving schools a powerful foundation upon which to build a high performing school district. The critical role of leadership permeates both of these frameworks and must be present to achieve systemic change. As Blazey, Davison, and Evans (2001) point out, “There is not one example of an organization or unit within an organization that achieves profound improvement without the personal and active involvement of its top leadership” (p. 16).

Although the Baldrige Criteria do not espouse a specific methodology, like Effective Schools, the Criteria encompass the principles of total quality that is “anchored in values that stress the dignity of the individual and the power of

community action” (Evans and Dean, 2003, p. 16). Building an environment and a context that empowers classroom teachers and enhances their collective efficacy to meet the challenge of addressing the varied needs of students cannot be left solely to the individual school; rather, “If we want more permanent, pervasive changes in the work processes of schooling, the school district is the minimum unit of change” (Rhodes, 1990 in Frazier, 1997, p. 57). The Baldrige Criteria and framework offer school districts an assessment process to identify key indicators of success and those practices that promote a quality culture.

History of the Baldrige Quality Award and Performance Criteria

The impetus for the development of a national quality award emerged from concerns in the early 1980s about the productivity of U.S. businesses and their ability to compete (George, 1992). A number of organizations at the state and national level began exploring structures and funding sources for a national productivity award that would encourage American businesses to practice effective quality management and control. On August 20, 1987, President Ronald Reagan signed the Malcolm Baldrige National Quality Improvement Act of 1987 into law.

The act assigned responsibility for the award to the Department of Commerce who then gave it to one of its agencies, the National Institute for Standards and Technology (NIST). Public Law 100-107 states that a national quality award would help to improve quality and productivity by:

- Helping to stimulate American companies to improve quality and productivity for the pride of recognition while obtaining a competitive edge through increased profits;
- Recognizing the achievement of those companies that improve the quality of their goods and services and providing an example to others;
- Establishing guidelines and Criteria that can be used by business, industrial, governmental, and other organizations in valuating their own quality improvement efforts; and
- Providing specific guidance for other American organizations that wish to learn how to manage for high quality by making available detailed information on how winning organizations were able to change their cultures and achieve eminence.

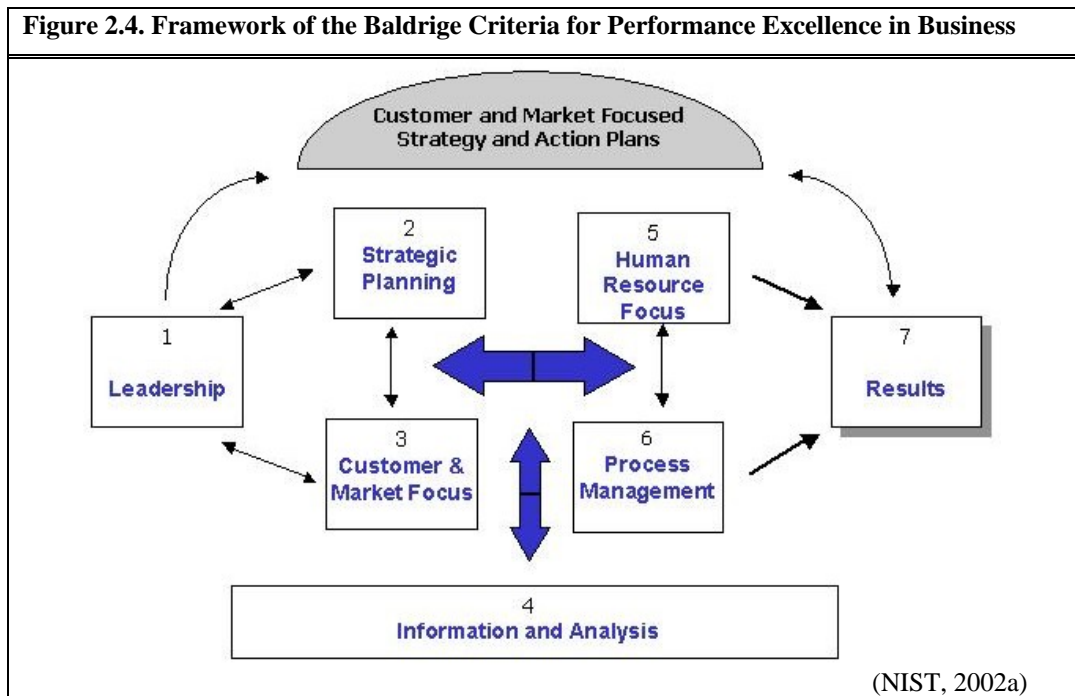
Curt W. Reimann, the first director of the Malcolm Baldrige National Quality Award (MBNQA), spearheaded the development of the Baldrige Criteria that address the key requirements for achieving performance excellence and provide the standard by which companies assess their progress and apply for the award (Bell and Keys, 1998; George, 1992). Reimann describes the Criteria as a non-prescriptive framework that addresses the quality requirements. “It’s a set of requirements that gives you considerable latitude in fashioning your own quality system” because “quality is not one thing you can write a prescription for and say that prescription fits your organization” (George, 1992, p. 42-43). Reimann and his committee took great

effort in developing a set of criteria adaptable across organizations and business sectors that would not favor particular practitioners or models of quality systems.

The result is an assessment instrument that can “provide a standard and specific guidance for organizations that wish to manage for high quality” (Marton, 1999). The Baldrige Criteria serve as a “tool that organizations can use to diagnose the condition of their quality systems, identify strengths and weaknesses, and plan their improvements” (George, 1992) and include seven interrelated categories:

1. Leadership
2. Strategic Planning
3. Customer and Market Focus
4. Information and Analysis
5. Human Resource Focus
6. Process Management
7. Business Results

The seven categories are further broken down into 18 examination items, 29 areas to address, and 89 questions. In addition, the Criteria ask the organization to respond to three dimensions—approach, deployment, and results. Approach refers to how your company achieves the purposes addressed and the processes used to run the organization; deployment explains how well or extensively your approaches have been implemented; and, the third dimension, results, refers to the measure of the company’s success with its approaches and deployment (Brown, 2001). Figure 2.4 illustrates the Baldrige Criteria Framework.



A set of interrelated core values and concepts support the Criteria and represent the “embedded beliefs and behaviors found in high-performing organizations” and are the “foundation for integrating key requirements within a results-oriented framework that creates a basis for action and feedback” (NIST, 2002a, p. 1) These core values and concepts include visionary leadership, customer driven excellence, organizational and personal learning, valuing employees and partners, agility, focus on the future, managing for innovation, management by fact, public responsibility and citizenship, focus on results and creating value, and a systems perspective.

Validity of the Baldrige Criteria for Performance Excellence in Business

As a guide and a standard for achieving quality, organizations must expend significant human and financial resources into building and sustaining a total quality management system. The question, then, arises, “Is it worth it?” Studies conducted

by university researchers, the NIST, as well as the General Accounting Office (GAO) all find that “companies adopting quality management practices experience overall improvement in employee relations, higher productivity, greater customer satisfaction, increased market share, and improved profitability” (Rajan and Tamimi, 1999, p. 39).

The *Baldrige Index*, developed by NIST, measures the performance of companies who have won the Baldrige Award by using a hypothetical investment of \$1000 worth of stock of each company. This portfolio of award winners included 26 publicly traded companies that demonstrated a 425 percent growth in value from 1988 to 1997 as compared to a 173 percent growth of comparable companies in the Standard and Poors 500 Index (Hutton, 2000). Rajan and Tamimi (1999) expanded the NIST findings by utilizing two different portfolio investment strategies: a buy-and-hold strategy and a portfolio rebalancing strategy. Again, results indicate “long-term investors are handsomely rewarded for investing in Baldrige award recipients,” but even more significant, “companies that demonstrate their commitment to customer satisfaction by focusing on Baldrige core values and concepts generate solid returns that ultimately benefit shareholders” (Rajan and Tamimi, 1999, p. 41).

Another study that Hutton (2000) calls the *Award Winners 600* looks at a larger number of companies, Baldrige award winners as well as recipients of less stringent awards, with more extensive performance metrics. The study compared this group with a control group and discovered that during the first five years the performance of both groups remained comparable; however, the second five-year period resulted in significant increase in performance of the award winners. The

study findings offer compelling evidence for the implementation of an effective management system, specifically a system that “provides a systematic way of charting a course that will lead toward this type of high-performance management system” (Hutton, 2000, p. 6)

The Baldrige Criteria do not guarantee success. As Marton (1999) contends:

Total Quality does not succeed or fail. The concepts are solid and proven. Properly implemented and nurtured as a management system with a variety of behavioral and analytical elements, Total Quality produces business results. ... Success depends on commitment, constancy, follow-through, and the ability to sustain progress. p. 3

The same concepts can apply to educational organizations whose bottom line, while not financial, contains significant value, namely student achievement and success.

Baldrige Criteria for Performance Excellence in Education

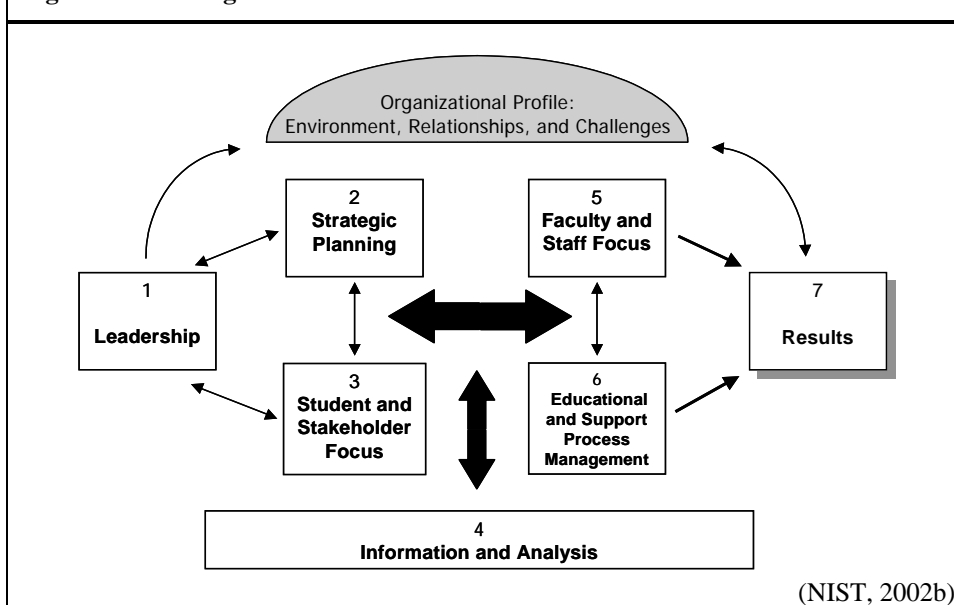
In 1999, NIST announced the inclusion of awards for achievement in education and health care. Recognition of the value of using the Baldrige Criteria in education can be traced throughout the literature of the 1990s. Frazier (1997) notes “Baldrige can be a useful tool for a school district to provide a benchmark or baseline for future self-assessments regarding the progress of the quality transformation” p. 94. Arcaro (1995) reminds us that “Education is all about people, and the process of achieving educational success through people is the foundation of the Malcolm Baldrige National Quality Award criteria as applied to education” (p. 25). Siegel and Byrne (1994) studied a number of educational organizations that exhibited key characteristics of the Baldrige Criteria finding that “quality as a comprehensive, systemic change strategy is applicable to an education setting” (p. 9).

Arcaro (1995) also suggests a number of benefits of applying the Baldrige Criteria including establishing a culture focused on student learning, an involved and informed staff willing to improve educational processes, increased cooperation, better learning environments, efficiency and productivity, improved student and administrative outcomes, effective teamwork, and improvements in education recognized by all stakeholders. Other benefits as cited by Karathanos (1999) include the provision of a “rigorous and comprehensive model for educational excellence” and widespread adoption of the Baldrige education Criteria should result in a “significant increase in research addressing the teaching and learning processes... (e.g., research on linkages among school performance results, between management practices and results, and among the six nonresults categories)” (p. 235).

Like the Baldrige Performance Excellence Criteria for Business, the Education Criteria are “built on a set of interrelated core values that characterize all types of high-performing organizations and are present in the best schools in the nation” and are linked to students’ need to be “fully engaged in seeking and interpreting knowledge and facts” (Blazey, et al., 2001, p. 31). The education framework consists of seven categories, 19 examination items, 30 areas to address, and 93 questions. Table 2.3 and Figure 2.5 describe the core values and the framework.

Table 2.3—Baldrige Criteria Core Values and Concepts

| | |
|--------------------------------------|---------------------------------------|
| Visionary Leadership | Managing for Innovation |
| Learning-centered Education | Management by Fact |
| Organizational and Personal Learning | Public Responsibility and Citizenship |
| Valuing Faculty, Staff, and Partners | Focus on Results and Creating Value |
| Agility | Systems Perspective |
| Focus on the Future | |

Figure 2.5. Baldrige Education Criteria for Performance Excellence

The Baldrige Criteria offer educators a proven set of interdependent principles and processes as well as tools for developing a systemic focus, alignment, and means for managing change. More and more educators are using the Baldrige Criteria and as Seigel (1997) points out, “Focusing on the interrelationships between approach, deployment, and results—as well as among the seven categories—offers educators at all organizational levels the chance to create and sustain high performance” (p. 16).

The National Goals Panel (2000) examined eight case studies, four state quality initiatives and four school districts, to document how innovative educators and policymakers are using quality management principles and the Baldrige Criteria for education. All cases demonstrated exceptional progress in student achievement and, equally important, formulated a body of knowledge based on lessons learned that can serve to assist other educators striving to increase their capacity for building high-performing organizations.

Malcolm Baldrige National Quality Award for Education Recipients

In 2001, three educational organizations received the Malcolm Baldrige National Quality Award (MBNQA). While each organization approached the quality journey in ways unique to their context, all shared several common attributes: (a) a strong leadership team to carry the vision and mission forward, (b) a focus on quality management principles, (c) a systemic approach toward continuous improvement with student achievement as the key outcome.

Pearl River School District in Pearl River, New York believed they had all the resources to become a high performance organization but were actually quite average; in 1989, the district sought to examine the strategies and processes of other high-performing districts through the lens of the effective schools movement. Pearl River found commonalities in effective schools model and the Baldrige core values. The district applied for the New York State Governor's Excelsior Award which was their first exposure to the quality movement, and the application process and evaluation convinced them that using the Baldrige Criteria as model would move them toward

their goals without being prescriptive or limiting. Pearl River established their mission, adopted three driving goals and a balanced scorecard in order to make incremental changes over time which then led the district to increasing student attendance previously lost to private and parochial schools, reducing per-pupil expenditures, raising the percentage of students taking the SAT I and moving the faculty satisfaction index from 86 percent to 96 percent through a comprehensive staff development plan focused on the knowledge and skills needed for each teacher (Green, 2002a; Mathews, 2002; Pederson, 2002).

Chugach School District serves 214 students across 22,000 square miles in south central Alaska. The Chugach story differs considerably from Pearl River's. Chugach underwent major restructuring in 1994 when it faced a 50 percent teacher turnover rate, average student performance three years below grade level in reading, and strong resistance to change. The superintendent, Richard DeLorenzo, brought his experiences of using the teachings of W. Edwards Deming as a special education teacher to his leadership role. Although the district had not focused on the Baldrige Criteria until two years prior to winning the award, using quality principles such as defining processes, tracking and analyzing data and results, involving all stakeholders, and maintaining a clear focus guided the district through the continuous improvement process and dramatic success in student achievement. Where once only one student in 19 years graduated from college, Chugach has produced several college graduates in just five years (Mathews, 2002).

The University of Wisconsin-Stout (UW-Stout), which had utilized some of the quality tools and Total Quality Management (TQM) since the 1990s, saw the match

between what they had been doing and the Baldrige. As Chancellor Charles Sorensen noted, “It was tight, it was focused and it didn’t necessarily tell you what you had to do within those seven categories. It allows you to really address those things in your mission and how you function” (Green, 2002b, p. 2). One of the most significant changes at UW-Stout involves how everyone thinks in terms of improving everything on a continual basis and reinventing the campus from isolated departments to a set of systems.

Each of these educational organizations found merit and direction in the Baldrige Criteria for Performance Excellence using the Criteria as a framework for continuous improvement in all aspects of the system. Siegel (2000) offers insight to what may well be the greatest benefit of the Baldrige in education, namely, “the long-term use of the Baldrige can build the organizational capacity of the education system, with business and community support, to sustain student and system improvement over time” (p. 68).

Summary

This review of the literature supports the premise that organizational management practices and performance have a systemic impact on the organization and the organization’s stakeholders. Accountability at state and national levels places significant demands on educators, and as Frazier (1997) has noted:

Reforms at the school-building level, without the involvement and support of the other components of the system, will more than likely not succeed in the long run. Successful transformation requires that the entire system share in a common vision, and then develop some very specific strategies to coordinate alignment up and down the organization. (p. 57)

Goddard (2003) also suggests that school leaders find ways to build collective efficacy, but missing throughout the discussion is the role and impact that leadership may actually have on collective efficacy itself. Current studies have not addressed the relation between campus leadership and collective efficacy leaving unresolved the issue of the impact of leadership change, management style, or other informal leadership groups. To what extent does not only campus leadership, but also the leadership and organization of the district impact collective efficacy? Could the organizational culture of the district have a greater influence on collective efficacy than even personal teaching efficacy? These are issues and questions that remain open for further research and form the basis of this investigation into the connections between the organization of the district, teachers, and student achievement. With this literature review as a foundation, the study was designed to gain insight into the above questions. Chapter III provides details of the design and methodology of the study.

CHAPTER III

METHODOLOGY

Introduction

This study proposed to identify those elements of the Baldrige Education Criteria for Performance Excellence that central office leaders, principals, and teachers perceived as having an impact on collective teacher efficacy. The study also sought to determine if a relationship exists between the perceptions of central office leaders, principals, and teachers concerning the extent of the implementation of the Criteria, the difficulty of implementation, and the impact of implementation on collective teacher efficacy.

The literature review suggested a relationship between collective teacher efficacy and student achievement and the role of leadership in developing an environment conducive to both personal and collective efficacy. Teachers' collective efficacy thrives or diminishes as a result of the environmental context established and sustained by district and campus leadership. Empowering faculty to participate in shared decision-making, setting clear expectations and aspirational goals, gathering and analyzing student achievement data with plans to address student needs, and focusing on individual and organizational learning all contribute to the work environment of teachers. As an integrated management system, the Baldrige Criteria reflect the participation and alignment of everyone in the organization to meet continuous improvement objectives.

Identifying and understanding the perceptions of significant groups in the organization becomes a vital process for assessing the extent of integration, alignment, and implementation of the Criteria. Groups are dynamic social structures best examined in a dynamic context such as the Delphi that uses multiple questionnaires and feedback reports to generate a group response. Eggers and Jones (1998) note, “Predictions made by groups are more likely to be correct than predictions made by the same individuals working alone (Kaplan et al, 1950)” (p. 54). To this end, the Delphi Technique best met the need for a methodology that would facilitate the identification of differences between groups and also provide a process to bring the groups to consensus and ultimately a response that reflected the most accurate view of the current reality in each district.

Research Design

The Delphi Technique originated from a military sponsored Rand Corporation study in the early 1950s that sought to obtain reliable consensus opinions from a group of experts (Linstone and Turoff, 1975). Dalkey and Helmer (1963) developed the Delphi Technique to provide information for decision making in areas where exact data were required but unavailable. Although the Delphi originated as a means of technological forecasting, the methodology applies to any purpose involving a committee (Martino, 1983). Linstone and Turoff (1975) explain, “The Delphi may be characterized as a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem” (p. 3). Three characteristics distinguish the Delphi from other

group processes, (1) anonymity, (2) iteration with controlled feedback, and (3) statistical group response.

In situations where individuals may not feel free to voice personal opinions that differ from the group, anonymity serves “to overcome the biasing effects of face-to-face discussion” (Parenté and Anderson-Parenté, 1987, p. 140) and permits more open responses from participants. In addition, the participant can change the response without public recognition, and each response can also be considered on its own merit without the interference of high or low opinions of the respondent.

The Delphi Technique utilizes a sequence of individual interrogations, usually questionnaires, combined with information and opinion feedback derived by a computed consensus of responses (Eggers and Jones, 1998). This series of interrogations, generally referred to as rounds, can be repeated as often as deemed practical and informative but usually does not exceed three or four rounds. Jones and Twiss (1978) observed, “that the shift in the forecasts occurring after the fourth round is usually not significant and frequently three rounds are adequate” (p. 231).

Dalkey (1969), through a series of experiments, discovered that more accurate decisions resulted with anonymous and controlled feedback as compared to face-to-face discussions. Helmer (1983) reports that he and Dalkey designed the Delphi “to make the best use of a group of experts in obtaining answers to questions requiring reliance, at least in part, on the informed intuitive opinions of specialists in the area of inquiry” (p. 134).

The Delphi methodology generates a statistical response that represents the opinions of the group through statistics that describe the center of the group opinion and the standard deviation or spread about that center (Martino, 1983). The Delphi also makes an assumption based on the “theory of numbers” proposing simply that N heads are better than one. Parenté and Anderson-Parenté (1987) explain “the Delphi method also assumes that the aggregate response will reflect the collective cognition of the group, thus providing a forecast that is generally superior to that of most individuals in the group (Loye, 1978)” (p. 141).

As a methodological tool “to obtain the most reliable consensus of opinion of a group of experts” (Dalkey and Helmer, 1963, p. 458) the Delphi has proved to be valuable in government, business, health, transportation, and education (Eggers and Jones, 1998). The most common criticisms of the Delphi center on researchers’ imprecise and inaccurate conclusions drawn from the data, the lack of robust statistical analyses, and the infiltration of bias resulting from judgment and opinion (Sackman, 1974; Woudenberg (1991). Based on these warnings, it is imperative to follow closely the protocol of the Delphi, adhere strictly to statistical parameters, and provide a link of the data to a systematic theoretical framework. As Clayton (1997) points out:

The Delphi has great strength and utility. It collects and organizes judgements in a systematic fashion. It gains input, establishes priorities and builds consensus. It organizes and helps to focus dissent, turning this group effect into a window of opportunity. In short, Delphi cannot be overlooked as a useful and potent tool when attempting to harness opinion for critical decision-making in education. (p. 382-383)

Population

One of the defining features of the Delphi method is the formation of the expert panel. Clayton (1997) defines an expert as “someone who possesses the knowledge and experience necessary to participate in a Delphi” (p. 377). Eggers and Jones (1998) cite three distinguishing characteristics of experts (from Walton, 1992):

1. Experts are persons who have sufficient knowledge and experience to have mastered the advanced skills of a particular domain of knowledge or experience.
2. Not only do experts have a special skill, they are proficient in their actions and they have special ways of applying their knowledge to a task in their area of expertise.
3. Experts are also proficient at identifying problems in their areas and then being able to tell if the problems are solvable. When the problems are solvable, the experts then solve them (pp. 55-56).

The size of expert panels in a Delphi varies. For homogeneous groups, ten to fifteen are sufficient although under certain circumstances several hundred may be appropriate (Delbecq, Van de Ven, and Gustafson, 1975; Jones and Twiss, 1978; Parenté and Anderson-Parenté, 1987). However, Delbecq et al. (1975) did find that “few ideas are generated within a homogeneous group once the size exceeds thirty well-chosen participants” (p. 89). Heterogeneous populations, as in the case of this study, may require only five to ten individuals since the panel members come from different professional stratifications, namely central office administrators, principals, and teachers (Clayton, 1997).

The population for this study included seventy-two individuals from three school districts from Texas, North Carolina, and New Mexico who have implemented the Baldrige Education Criteria for Performance Excellence for a minimum of five years. The selection of participating districts began by seeking participation from those school districts who had been involved in total quality management or the Baldrige in Education Initiative. The Baldrige in Education Initiative (BiE IN), developed and initiated in mid-1999, recognized that public education faced many of the same types of problems and accountability measures driven by legislation that industry faced in the 1960s and 1970s. The goal of the partnership of 24 leading national education and business organizations managed by the National Alliance of Businesses (NAB) and the American Productivity and Quality Center (APQC) centered on assisting states, districts, and communities in building the capacity to accelerate and sustain systemic continuous improvement of student achievement by aligning systems at all levels; assessing the organization; providing technical support and networking; and implementing best practice through benchmarking and sharing.

After contacting several state BiE IN representatives, direct invitation to districts across the United States, and personal contact with superintendents, three districts were found who agreed to participate and met the criteria established for this study. Selecting a rural, a suburban and an urban-suburban district was another factor that would allow for analysis between/among the districts with consideration of any variances that might exist based on this difference.

Each district consisted of three eight-member expert panels—central office leaders including the superintendent, campus principals, and teachers from each

principal's campus. The superintendent appointed the central office and principal panel members, and principals appointed teacher panel members from their respective campus following the specified criteria.

Panel members for each group met the following qualifications:

Central Office Leaders and Principals

- Employed by the district during the implementation of the Baldrige Education Criteria for Performance Excellence;
- Provides leadership at the district and/or campus level for the implementation of the Baldrige Education Criteria for Performance Excellence;
- Possesses a common understanding of collective teacher efficacy as defined in this study.

Teachers

- Employed by the district during the implementation of the Baldrige Education Criteria for Performance Excellence;
- Participates in district and/or campus decision-making committees related to the Baldrige Education Criteria for Performance Excellence.
- Possesses a common understanding of collective teacher efficacy as defined in this study.

Instrumentation

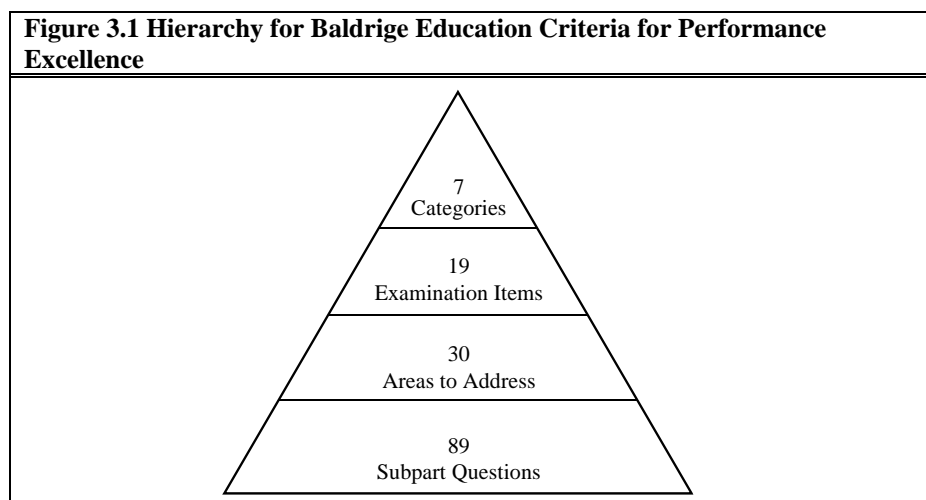
The classical "Delphi method" consists of a sequence of questionnaires which may originate through one or more open-ended questions or a single issue statement

to which panel members respond creating a set of responses around which subsequent questionnaires seek group consensus (Delbecq et al., 1975; Jones and Twiss, 1978; Linstone and Turoff, 1975; Martino, 1983). More recent applications of the Delphi have begun the process with a pre-designed written questionnaire which then generated a more refined questionnaire based on the convergence of perspectives among participants through each round of the process (Rothwell and Kazanas, 1997).

This study employed a structured questionnaire directly aligned to the Baldrige Education Criteria for Performance Excellence to focus more succinctly on the key characteristics of integrated management systems as reflected in the Criteria. The Criteria for Performance Excellence (CPE) contain a rigorous set of criteria designed to encourage organizations to enhance their effectiveness and competitive edge through an integrated management system that creates an aligned approach to organizational performance (Evans and Dean, 2003). In the mid-eighties, the National Bureau of Standards (currently the National Institute of Standards and Technology), under the direction of Curt Reimann, examined every aspect of quality resulting in a thorough investigation and analyses of quality theory, frameworks, and practice. From this data, the Criteria emerged as a nonprescriptive framework of key requirements for excellence. The CPE remain dynamic and open to revision and improvement through a rigorous process of evaluation based on applicant feedback reports and site visits as well as soliciting ideas from applicants, examiners, and other quality experts (George, 1992). The generative nature of the CPE and the process used to maintain its integrity provide a reliable base upon which to build a

questionnaire designed to examine the extent of implementation in educational organizations.

The questionnaire items were derived from fourteen of the nineteen examination items that cover six of the seven categories of the Baldrige Education Criteria. The examination items in each category define major requirements on which organizations should focus. Category 7 was not included since those items require the applicant to support and verify implementation and deployment through organizational results and did not apply to the purpose of this questionnaire. The seven categories of the education CPE are broken down into 19 Examination items, 30 Areas to Address, and 89 Subpart Questions as illustrated in Figure 3.1.



Using the Baldrige Education Criteria for Performance Excellence as the basis for the survey items, a questionnaire of 26 statements was developed to provide the data for the study. The questionnaire maintained the purpose of each item and the areas to address by drawing from the subpart questions to formulate the 26

statements. For example, Item 1.1 (NIST, 2002b) examines organizational leadership, and the first area to address pertains to senior leadership direction asking:

How do senior leaders set and deploy your organizational values, short- and longer-term directions, and performance expectations, including a focus on creating and balancing value for students and stakeholders? Include how senior leaders communicate values, directions, and expectations through your leadership system and to all faculty and staff. (p. 14)

In the questionnaire, this became questions one and two as follows:

1. To what extent have district leaders established core values and performance expectations?
2. To what extent have district leaders communicated the core values and performance expectations?

Some of the language in the Criteria also posed a problem since the Education Criteria utilizes some terminology from the business sector that might be unfamiliar and could cause difficulty in accurately interpreting and applying the Criteria language to an educational context. After examining several assessment surveys designed to simplify the Criteria and to assist public schools in determining the extent of implementation, it was determined that these documents, although useful and informative for districts in the early stages of assessing management performance, did not adhere strictly enough to the intent and purposes of the Criteria to serve as reliable instruments for this study. In order to maintain the integrity of the Criteria, substitutions in language and phrasing focused on making only those changes in wording that clarified for the reader the intent of the Criteria. For instance, the word “deploy” was replaced with the more common term, “implement.”

The questionnaire utilized one five-point and two four-point Likert scales linked to each item to measure the perceptions of the extent of implementation of the Criteria, the difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy. Each scale also included a “not observed” response choice. The implementation scale was developed from the judging Criteria for the Malcolm Baldrige National Quality Award Scoring Guidelines.

The scoring guidelines consider three evaluation dimensions: *approach*, which refers to how the organization addresses the requirements of an item; *deployment*, which assesses the extent to which the approach is applied; and *results*, which measure the outcomes of the approaches. Scores are calculated in percentages within a range that reflects the organization’s Total Quality maturity (Marton, 1999). The implementation scale measured the maturity of the organization in terms of both approach and deployment from a fully integrated and deployed systematic approach to no systematic approach in place in the organization (Table 3.1).

| Table 3.1—Extent of Implementation Likert Scale | |
|--|---|
| Implementation | |
| <input type="checkbox"/> | Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement |
| <input type="checkbox"/> | Systematic approach, well integrated and implemented |
| <input type="checkbox"/> | Systematic approach, reasonably implemented |
| <input type="checkbox"/> | Systematic approach, early stages of planning and implementation |
| <input type="checkbox"/> | No systematic approach |
| <input type="checkbox"/> | Not observed |

The scale for difficulty of implementation used a four-point range that asked the respondent to evaluate the difficulty of implementing each of the 26 management processes reflected in the statements (Table 3.2).

| Table 3.2—Difficulty of Implementation and Impact on Collective Teacher Efficacy Scales | |
|--|-----------------|
| Difficulty of Implementation | |
| <input type="checkbox"/> | Very easy |
| <input type="checkbox"/> | Easy |
| <input type="checkbox"/> | Difficult |
| <input type="checkbox"/> | Very difficult |
| <input type="checkbox"/> | Not observed |
| Impact on Collective Teacher Efficacy | |
| <input type="checkbox"/> | Strong impact |
| <input type="checkbox"/> | Moderate impact |
| <input type="checkbox"/> | Limited impact |
| <input type="checkbox"/> | No impact |
| <input type="checkbox"/> | Not observed |

The distribution method of the questionnaire in a Delphi has typically followed the procedure described by Linstone and Turoff (1975) who explain:

The Delphi process today exists in two distinct forms. The most common is the pencil-and-paper version, which is commonly referred to as a ‘Delphi Exercise.’ ...A newer form, sometimes called a ‘Delphi Conference,’ replaces the monitor team to a large degree by a computer which had been programmed to carry out the compilation of the group results. (p. 5)

This study combined both forms utilizing current web-based technology to facilitate easy access to the questionnaire and automate the reporting and compilation of the response data. However, some participants preferred the pencil-and-paper version which was either mailed or faxed to the respondent.

The researcher maintained the questionnaire online using a web-hosting server. The questionnaire was implemented for the web using HTML and CGI script. When participants completed the questionnaire and submitted the form, the researcher received the responses as an email message

All communication with participants occurred through email. Participants received the link to the questionnaire and instructions for completion in an email; however, some participants requested mailed paper copies of the questionnaires as a personal preference or as a result of difficulty accessing the web. When paper-and-pencil versions were requested, the questionnaire was coded for confidentiality and participants received a stamped self-addressed envelope with the return address coded for identification. Otherwise, participants were assigned a unique identity by email address, which was collected at the start of the study.

Pilot Round

The questionnaire was field tested by six educators within Texas. In order to mirror the panel groups of the study, two central office leaders, two principals, and two teachers agreed to participate. Each participant received an email with instructions and a link to the on-line questionnaire; all responses were successfully received by return email to the researcher.

The field test questionnaire also included a comment section to allow the respondents to critique the clarity of the questions and provide feedback on the ease and practicality of the process. As a result of participants' comments, the

questionnaire underwent several changes in the language of the questionnaire and further clarification of the instructions.

The qualification for the expert panel stipulated that members have an understanding of quality principles and be familiar with district implementation of the Baldrige Education Criteria. One of the teachers in the field test group had limited knowledge of the Criteria which made the questionnaire difficult and confusing to interpret. Since the level of maturity in fully integrating and implementing the Criteria in an organization requires that everyone recognize and participate in the implementation, the participant's reaction suggests similar responses may result from an organization with limited or inconsistent deployment.

Reliability and Validity

Reliability in qualitative research centers on “the extent to which other researchers would arrive at similar results if they studied the same case using exactly the same procedures as the first researcher” (Gall, Borg, and Gall, 1996, p. 572). Cano (2003) states, “Reliability addresses how accurate your research methods and techniques produce data” (p. 4). Creswell (1998) views reliability and validity in terms of procedures for verification in qualitative research suggesting that researchers:

1. View verification as a distinct strength of qualitative research;
2. Use the term *verification* instead of *validity*;
3. Employ the Lincoln and Guba (1985) terms of *trustworthiness* and *authenticity*;

4. Employ different frames of verification (validity) if using a postmodern perspective; and,
5. Recognize that verification of a study has procedural implications. (p. 201)

In order to translate these ideas into practice, Creswell (1998) describes a set of classification procedures he and a colleague developed based on their review of major studies and consideration of several perspectives currently espoused in the field.

Creswell recommends engaging in at least two of the following eight procedures in any given study:

1. Prolonged engagement and persistent observation
2. Triangulation
3. Peer review or debriefing
4. Negative case analysis
5. Clarifying researcher bias
6. Member checks
7. Rich, thick description
8. External audits (p. 201-203)

The Delphi technique, by design, utilizes *member checks* through the consensus process of the multiple rounds ensuring the credibility of the data that has been drawn from qualified expert panel members. In order to ensure transferability of the information derived from this study, the researcher must provide a *rich and thick description* of the context, participants, and the conceptual framework around which the study has been designed, namely the Baldrige Education Criteria for Performance Excellence. Applying the Criteria as the basis of the questionnaire ensures that the

instrument correctly operationalizes the concepts of an integrated management system as it relates to the perceptions of central office leaders, principals, and teachers.

Following the procedures of the Delphi and providing extensive description and accurate interpretation of the data will significantly enhance the ability to replicate the research. Although the intent of qualitative research focuses on the interpretation of events within a unique context, Gall, et al., (1996) suggest several strategies to assist readers in determining the generalizability of research findings to other situations including providing “a thick description of the participants and the context” and addressing “the issue of whether the selected case is representative of the general phenomenon being investigated” (p. 579).

The Delphi Rounds

The Delphi technique consists of basically three phases or rounds and maintains confidentiality of individual responses throughout the process. Prior to the beginning of the Delphi, the superintendent of each study district submitted a list of names and email addresses of all district personnel who had been nominated to participate and agreed to take part in the research study. The two out-of-state districts preferred to conduct all communication through email. For the third district, an email was sent to participants verifying their preference for email or paper copies. Only after some participants in the other districts encountered technical difficulties were paper copies of all research materials sent.

Using an email program, a distribution list was created to facilitate dissemination of the individual emails containing research materials, instructions, and

link to the on-line questionnaire. Use of the *blind carbon copy* (Bcc) feature ensured confidentiality when using the distribution list. This mail feature sends a copy of the message to the recipient, and the recipient's name is not visible to other recipients of the message.

Round One

The first phase or round one involved the completion of a questionnaire by each panel member, analyses of the response data, and a synthesis of the responses resulting in the formation of a revised questionnaire that eliminated items for which each group reached consensus. To begin the Delphi exercise, each of the seventy-two participants received an email that:

- Thanked the participant for agreeing to engage in the research study and how they met the panel member qualifications.
- Explained the purpose of the research.
- Provided a brief overview of the Delphi methodology.
- Contained the link to access the instructions and the round one questionnaire.
- Ensured confidentiality and assurance that non-participation would not affect personal or professional relationships.
- Cited the approval of the Institutional Review Board-Human Subjects in Research and contact information.

A follow-up email included the timeline for the research study.

For those participants who received the questionnaire through the mail, the following materials were sent:

- Information sheet
- Research time schedule
- Round one questionnaire coded for confidentiality
- Stamped addressed return envelope coded for confidentiality

Appendix B contains samples of all of the above materials.

Seventy of the 72 participants returned the round one questionnaire; one participant never responded to subsequent emails and mailing of the questionnaire, and the second participant died leaving that district with 23 panel members. The original timeline allocated two weeks for returning the first round. However, receipt of all responses required several email reminders lengthening the response time for round one to eight weeks with approximately three weeks lost to holidays.

The following steps prepared the return responses for data analysis:

1. The response email was saved as a text file and formatted for copying into a *Microsoft Excel* file.
2. A separate data file was created for each district.
3. The *Excel* file was exported to *Statistical Package for the Social Sciences (SPSS) Version 11.0* (2001).

Descriptive statistics, using *SPSS*, yielded the data necessary to determine those items where consensus occurred between groups and across each panel group. This information directed the development of the round two questionnaire.

Round Two

Round two used selected items from the round one questionnaire as determined by panel member responses eliminating those items that met the requirement for demonstrating consensus. Panel members also had the opportunity to generate a minority report that provided supporting statements for individual responses that fall one unit or more from the median of the group responses from round one. The purposes of this round were (1) to move toward a consensus on each item, if there was a consensus; and (2) to solicit the rationale for a response that differed from the median response. Participants could maintain their original response or change their original response to agree with the median response of the group.

The round two questionnaire included only those questions and scales for which consensus was not reached on round one. As a result, the questionnaire differed for each district since the study sought to examine both the within district and between district data. In addition, each individual received their own questionnaire for round two that reported the median score for the district and their score for each scale for each question. This required developing 70 unique questionnaires that followed the same development process as the round one questionnaire. The questionnaires were then uploaded to the web host creating separate access links for each panel member.

Participants received an email containing the instructions for round two and the link to their questionnaire. Eight participants received paper copies with instructions and a stamped self-addressed envelope following the same coding

procedure as in round one. Sixty-two of the remaining 71 panel members responded to the round two questionnaire. During round two, one panel member chose to withdraw from the study.

Round two required approximately 10 weeks to receive all responses following several email reminders or a second mailing of the questionnaire. The process for tabulating the median score was repeated for round two with the addition of a compilation of all the comments generated in the minority report by question.

Round Three

Based on the data from round two, a third questionnaire was generated for each district again eliminating those items where consensus had been reached. Round three questionnaires were developed for each panel member following the procedures established in round two. The round three questionnaires also contained the comments generated from the round two minority report.

The purpose of this final round was to give panel members an opportunity to make any final adjustments to individual responses based on the median data for each survey item and review the minority report with the option to add additional comments. The email for this final round, thanked each member for participating in the study, provided instructions for completing round three, and included the link to their round three questionnaire. As in previous rounds, the same materials were sent to eight participants requiring paper copies. The determination of group consensus and the data analyses for each research question used the results of the third and final round.

All responses were received for round three at the end of eight weeks. Of the 71 panel members, 60 completed all three rounds of the Delphi exercise and consisted of 21 central office administrators, 23 principals, and 16 classroom teachers concluding with an 85% response rate. One panel member expressed difficulty completing the last round because of personal issues. An attempt was made to contact the remaining ten panel members to determine the reasons for discontinued participation in the study. No response was received. After requesting verification from each of the districts that all panel members remained employed with the district throughout the study, the inquiry revealed that two panelists were leaving the district, which may have impacted commitment to the study and completion of the final round.

Data Analysis

This study applied descriptive statistics to organize and summarize the research data. Following each round of questionnaires, the data were examined to determine which statements met the Criteria established for consensus and then those statements reaching consensus were eliminated on the subsequent questionnaire. After the final round, analysis of the questionnaire data was also used to generate a matrix that illustrated the level of difficulty of implementing the Baldrige Education Criteria for Performance Excellence and the impact of implementation of the Criteria on collective teacher efficacy.

In addition to collecting and organizing data in a systematic fashion, the Delphi gains input, establishes priorities, and builds consensus (Clayton, 1997). The most widely accepted procedure for determining consensus involves computing the median for the group. Parenté and Anderson-Parenté (1987) explain:

The median response of the group will be at least as close to the true answer as one-half of the group (M). Moreover, if the range of individual answers includes the true answer, then M will be more accurate than more than half of the group. Therefore, regardless of where the true answer falls, the median response of the group will be more accurate than a majority of individual panelists. (p. 141)

The median is often used in a Delphi since they are easy to compute, and when dealing with small samples, are “just as useful for describing the ‘center’ and ‘spread’ of a sample” (Martino, 1983, p. 299). In this study, the median served as the key measure for determining convergence toward consensus. Scheibe, Skutsch, and Shofer (1975) also note “consensus is assumed to have been achieved when a certain percentage of the votes fall within a proscribed range,” and of equally importance to the analyses may be those distributions that flatten and have no strong peak and bimodal distributions indicating a cleft of opinion (p. 277). Furthermore, since opinion has a natural tendency to centralize in a Delphi, resistance reflected in unconsensual distributions should be examined with special interest (Scheibe, et al., 1975).

The histogram provides a powerful visual display of the frequency distribution of the responses void of interpretation. In this way, significant trends and patterns emerge through which observations and conclusions can be drawn (Jones and Twiss, 1978). The data for this study were reported using histograms as well as other descriptive charts and tables.

The panel of experts from each district of the three study districts included three separate subgroups, each expressing individual perspectives toward the extent of implementation of the Baldrige Education Criteria for Performance Excellence, the difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy. For the purposes of this study, consensus was determined to be reached when the following Criteria were met:

1. 50% or more of the responses of each subgroup fell within the median response.
2. 60% or more of the total responses fell within the median response.

Cross tabulation tables proved the most accurate and expeditious means of examining the distribution of the responses in relation to the median. Table 3.3 illustrates a cross tabulation table that meets the rule for consensus.

Table 3.3—Sample of Cross Tabulation Table for Question 9 Implementation

| <i>Extent of Implementation Scale</i> | | | | | |
|---------------------------------------|---|--|--|--|--|
| 1. | Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | |
| 2. | Systematic approach, well integrated and implemented | | | | |
| 3. | Systematic approach, reasonably implemented | | | | |
| 4. | Systematic approach, early stages of planning and implementation | | | | |
| 5. | No systematic approach | | | | |
| 6. | Not observed (NO) | | | | |

| Implementation Question 9 | | Position | | | Total |
|---------------------------|------------|----------------|-------------|-------------|-------------|
| | | Central Office | Principals | Teachers | |
| 1 | Count | 3 | 1 | | 4 |
| | % within | 42.9% | 12.5% | | 19.0% |
| 2 | Count | 4 | 5 | 4 | 13 |
| | % within | 57.1 | 62.5 | 66.7 | 61.9 |
| 3 | Count | | 1 | | 1 |
| | % within | | 12.5% | | 4.8% |
| 4 | Count | | 1 | 2 | 3 |
| | % within | | 12.5% | 33.3% | 14.3% |
| Total | Count | 7 | 8 | 6 | 21 |
| | % of Total | 33.3% | 38.1% | 28.6% | 100.0% |

The cross tabulation shown in Table 3.3 reveals that this question met the consensus rule because 50% of all the responses for each subgroup fell in the median, which was 2.

The Delphi rounds generated the data that would respond to each of the four research questions. Table 3.4 outlines the data used for analyses.

Table 3.4—Research Questions and Data Used for Analyses

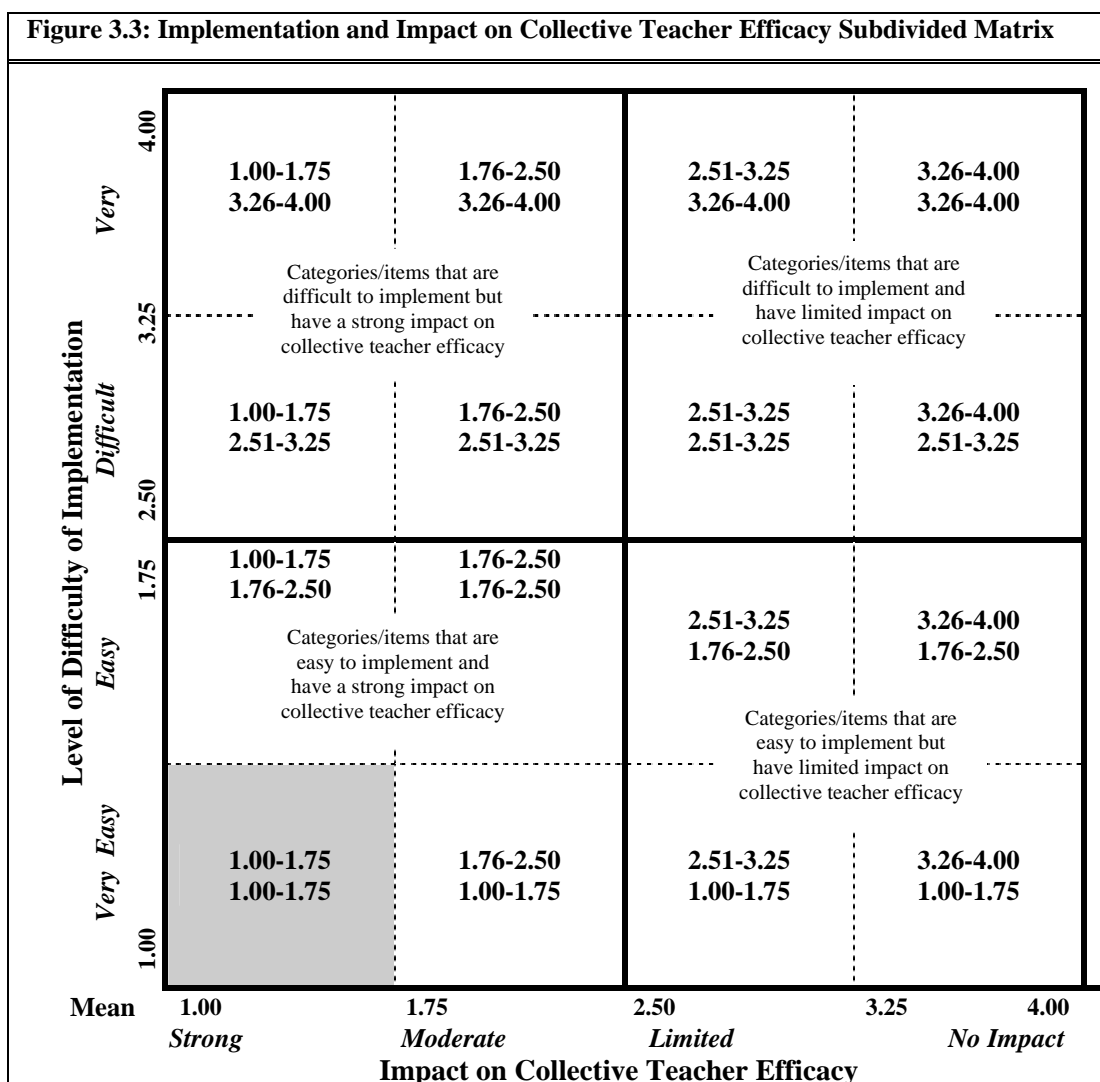
| | |
|----|---|
| 1. | What are the perceptions of central office leaders, principals, and teachers of the extent of implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy? <ul style="list-style-type: none"> ▪ Aggregate data of each Likert scale across districts for each panel group ▪ Frequency distributions |
| 2. | Do differences exist within a district between and within panel groups (district leaders, principals, and teachers) in the perceptions of the extent of implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy? <ul style="list-style-type: none"> ▪ Data of each Likert scale for every district per panel group and the district aggregate ▪ Frequency distributions |
| 3. | What similarities and differences exist between and among districts in regard to the level of difficulty in implementing the Criteria and the impact of the implementation of the Criteria on collective teacher efficacy? <ul style="list-style-type: none"> ▪ Aggregate data from all districts of the Difficulty of Implementation scale and the Impact on Collective Efficacy scale ▪ Frequency distributions |
| 4. | What is the relationship between the perceptions of the extent of implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy? <ul style="list-style-type: none"> ▪ Aggregate data across all districts and panel groups ▪ Correlation analyses |

“Where do we begin?” is a common question from districts just beginning to develop an integrated management system through the application of the Criteria for Performance Excellence. Another objective of this study was to generate a matrix that would define those management systems that had the greatest impact on collective teacher efficacy and ultimately student achievement but were easy to implement providing a foothold for the emerging integrated system. Using the aggregate data on the difficulty of implementation and the impact on collective teacher efficacy, a matrix could be developed demonstrating which key areas would be easy to implement and have a strong impact on collective efficacy (Figure 3.2).

Figure 3.2: Implementation and Impact on Collective Teacher Efficacy Matrix

| | | | | | |
|--|---|--|---|---|---|
| Level of Difficulty of Implementation | | | | | |
| | | Impact on Collective Teacher Efficacy | | | |
| Difficult | 4 | Categories/items that are difficult to implement but have a high impact on collective teacher efficacy | | Categories/items that are difficult to implement and have a low impact on collective teacher efficacy | |
| | 3 | | | | |
| Easy | 2 | <i>Categories/items that are easy to implement and have a high impact on collective teacher efficacy</i> | | Categories/items that are easy to implement but have a low impact on collective teacher efficacy | |
| | 1 | | | | |
| Mean | | 1 | 2 | 3 | 4 |
| | | Strong | | No Impact | |

As demonstrated in Figure 3.3, the matrix was further subdivided to capture a more detailed understanding of the relationship between implementation and impact.



The shaded cell indicates that the mean for the aggregate responses measuring the difficulty of implementation was between 1.00 and 1.75, and the mean for the impact on collective teacher efficacy was also between 1.00 and 1.75. This differentiation reveals more specifically the extent of the relationship between the two measures.

Summary

The Delphi Technique best suited the gathering of data to address the four research questions of this study. Through a structured questionnaire aligned to the Baldrige Education Criteria for Performance Excellence, participants from three school districts subdivided into three panels representing central office leaders, principals, and teachers responded to three Delphi rounds. The intent of each round was to strive toward consensus of the perceptions each panel group on the extent of implementation of the Criteria in the district, the difficulty of the implementation, and the impact of that implementation on the collective efficacy of teachers.

This chapter presented the techniques employed for this investigation. Chapter IV contains a description of each study district. The following chapter also provides the results and the analysis of the data as it relates to the four research questions.

CHAPTER IV

ANALYSIS OF DATA

Introduction

This study proposed to identify those elements of the Baldrige Education Criteria for Performance Excellence (BECPE) that central office leaders, principals, and teachers perceive as having an impact on collective teacher efficacy. The study sought to determine if there exists a relationship between the perceptions of central office leaders, principals, and teachers concerning the implementation of the Criteria, difficulty of implementation, and the impact of implementation on collective teacher efficacy. Since 1999, the Baldrige National Quality Program has provided criteria focused on education offering school districts a framework for improving organizational performance by helping to “align resources; improve communication, productivity, and effectiveness; and achieve strategic goals” (NIST, 2002b). Harry S. Hertz, Director of the Baldrige National Quality Program comments on the role of the Criteria for school districts:

In today’s environment, the Baldrige Education Criteria help organizations respond to the diverse needs of students, the need for enhanced curriculum and education delivery methods, changing regulatory requirements, demanding accreditation requirements, and the growing role of the Internet (p. i).

As a framework, the BECPE defines those key processes critical for a high performing organization that operates from a systems perspective. A systems perspective starts with senior leaders focusing on strategic directions and student and stakeholders. Through a systems perspective, senior leaders monitor performance

based on key results derived from the measures and indicators linked to key strategies that are aligned to processes and resources designed to improve and achieve success.

Figure 2.5 illustrates the interconnected components of the framework.

Full deployment of organizational strategies and processes becomes evident when an organization's approach is used "whenever and wherever it could be used effectively, such as in different parts of the organization and in different situations" (Hutton, 2000, p. 92). Effective deployment, which is the extent to which processes are used across the organization, requires a well-integrated approach that is consistently evaluated and routinely refined (Blazey, et al., (2001).

School systems have typically developed silos of individual schools and individual classrooms that operate independently from the whole leading to disconnected and often conflicting efforts within the organization. School reform focused on quality student achievement demands that educators "understand the interdependencies and relationships that exist and influence the temporal performance of systems, processes, and people functioning within the school district" (Goldberg and Cole, 2002, p. 13). Ultimately, what will matter most is how the functioning of a school system impacts those most responsible for teaching and learning—classroom teachers.

The four research questions of this study focused on gaining insight into how the management of school systems employing a systems perspective to operationalize an integrated management system impacts the collective efficacy of classroom teachers who must meet or exceed the steep accountability demands for academic success for all students. The following questions directed the study:

1. What are the perceptions of central office leaders, principals, and teachers of the extent of implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy?
2. Do differences exist within each district between panel groups (district leaders, principals, and teachers) in the perceptions of the extent of the implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy?
3. What similarities and differences exist between districts in regard to the level of difficulty in implementing the Criteria and the impact of the implementation of the Criteria on collective teacher efficacy?
4. What is the relationship between the perceptions of the extent of implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy?

Demographics of the Study Districts

Three school districts from New Mexico, North Carolina, and Texas agreed to participate in the study; each district has implemented Total Quality Management (TQM) or the Baldrige Criteria for Performance Excellence for a minimum of five years. Although senior leaders may not have overtly used the Criteria to communicate the development of an integrated system, the principles and core values of the Criteria guided continuous improvement efforts and decision-making. The background provided on each district serves to establish an enhanced context for analyzing and interpreting the data from the individual district as well as the aggregate data across districts. In order to gain common contextual information, the superintendents from the study districts responded to the following questions:

1. How long has your district sought to implement TQM and/or the Baldrige Criteria to guide management, and how have you communicated this decision throughout the district?
2. What training in TQM and/or the Baldrige Criteria has been provided for central office administrators, campus administrators, and classroom teachers?
3. What 3-5 key factors have the most impact on the district's ability to implement the Baldrige Criteria as a management system?
4. What has been the greatest challenge for your district in developing a high performing quality organization?

The replies from the superintendents have been embedded in the following overviews of the participating districts.

Aldine Independent School District

The Aldine Independent School District located in northern Harris County in Houston, Texas spans 111 square miles and includes a variety of communities—rural, suburban, industrial, and commercial. The district serves approximately 55,300 students making Aldine one of the 12 largest districts in Texas with 5 high schools, 5 ninth grade schools, 8 middle schools, 10 intermediate schools, 30 elementary schools, 5 early childhood/pre-kindergarten centers, and 5 alternative schools.

The enrollment of Aldine has changed considerably in the past 15-20 years moving from a predominantly Anglo, middle to upper socio-economic status population to a predominantly minority student population with 78.8% classified as economically disadvantaged based on eligibility for the federally funded free and reduced lunch program. The student demographics of Aldine includes 56.2% Hispanic, 33.2% African American, 7.7% White, and 2.8% other ethnic backgrounds.

Aldine employs more than 7,000 people of which over 4,000 are classroom teachers. More than 24% of the teaching staff hold master's degrees or higher. The average experience of teachers is 10.6 years, and teachers remain in the district an average of 6.7 years. The student teacher ratio averages 22:1 in grades pre-kindergarten through grade 4, 28:1 in grades 5 and 6, and 29:1 in grades 7 through 12.

Since 1996, Aldine has earned a Recognized rating from the Texas Education Agency, and the largest school district in the state to earn this high performance rating two of the last six years. To receive a Recognized rating, at least 80 percent of all students and each student subgroup must pass the state required Texas Assessment of

Academic Skills (TAAS), must have an attendance rate of at least 94%, and a drop-out rate below 3%. Aldine also received an *Excelling District Award* from the Texas Education Agency's Migrant Division in the fall of 2002 for successfully educating migrant students. Longitudinal test data in mathematics and reading show that student achievement has increased in the district (Figures 4.1 and 4.2).

Figure 4.1. Aldine ISD Mathematics TAAS Passing Rates

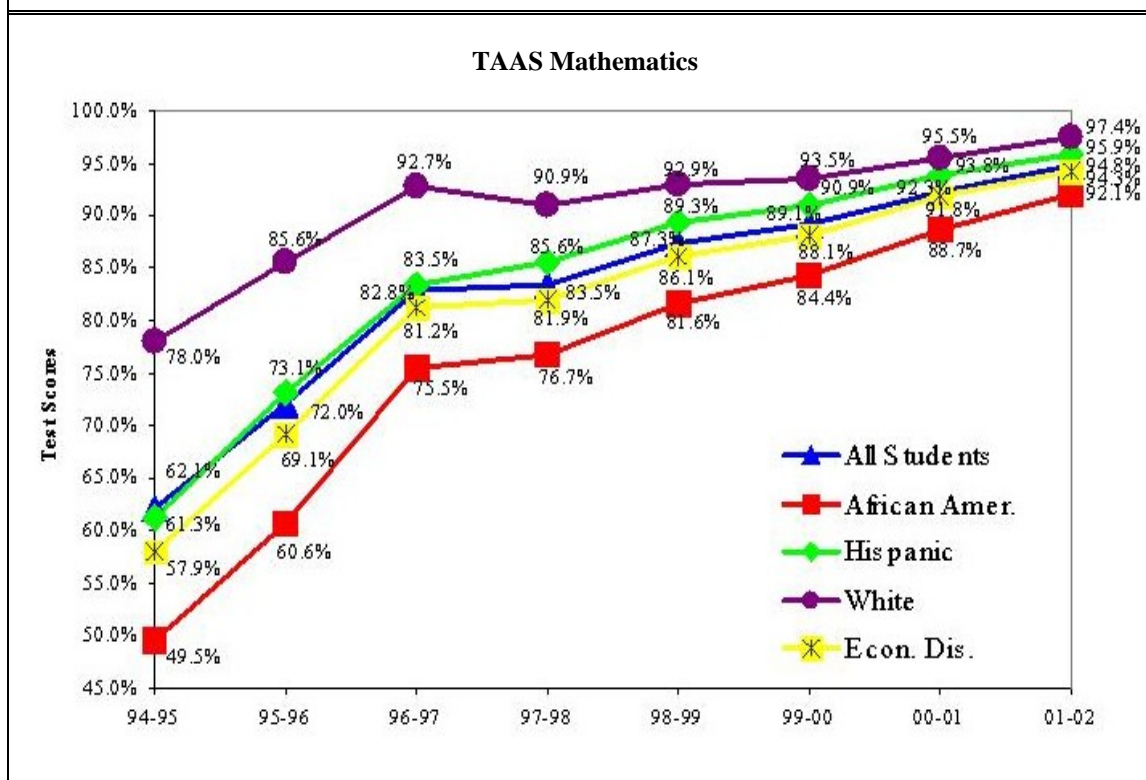
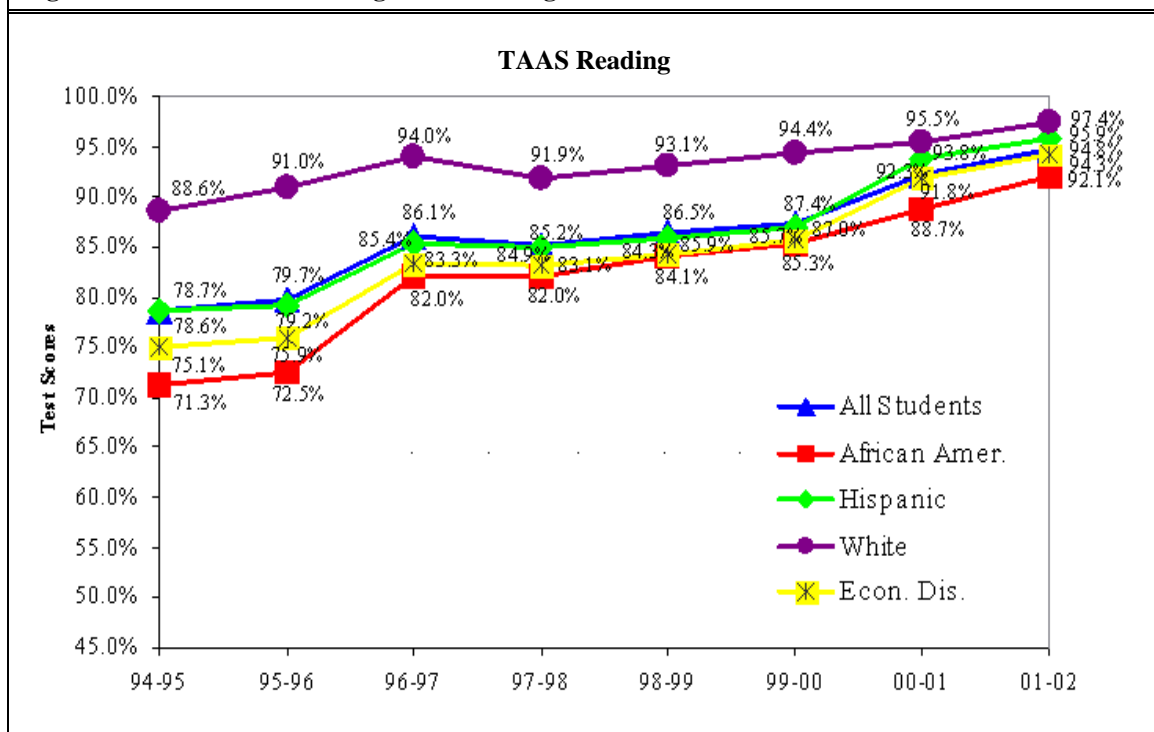


Figure 4.2. Aldine ISD Reading TAAS Passing Rates

As the data illustrates, Aldine’s focus on quality student learning has resulted in increased student success among all students in the district and has continued to close the gap between the subgroups of students.

Aldine’s “Journey to Organizational Excellence” began by integrating the Effective Schools Correlates into the Aldine Plan. By maintaining a clear and focused mission including addressing the belief system of the district, setting high expectations, focusing on instructional leadership to guide student success, monitoring for success, and providing intervention and adjusting strategies to ensure mastery, the district accomplished improved student achievement as reflected in the Figures 4.2 and 4.3. However, the district recognized that their standards did not meet business standards

lacking clear data trails, a focus on the whole organization, trend data, and alignment of all departments to the district focus. In addition, the district experienced high teacher turnover, and a survey of teachers revealed the following:

- Teachers were not involved in decision making.
- Teachers did not know what was going on in the district.
- Teachers were concerned about behavior.
- Teachers believed “central office didn’t have a clue.”

Aldine responded to an invitation to participate as a pilot district for the Baldrige in Education Initiative in 1999, which initiated a focused journey into using the BECPE as a framework for developing an integrated management system in the district. At the outset, the district utilized self-assessment tools and began training for district leadership in the Criteria utilizing a consultant knowledgeable in the BECPE. Training focused on the components of a Framework for Organizational Excellence (BECPE) and developing aligned district and campus plans along with a balanced approach to measuring results. Training was then extended to campus principals, grade level, and department team leaders and most recently classroom teachers. This began the process of communicating and deploying quality processes throughout the district.

The three factors that have had the greatest impact on the district’s ability to implement the BECPE as an integrated management system include follow-up and reinforcement of the critical concepts, addition of new administrators and teachers who must receive training and embrace the culture, and the quality of communication, which can either hinder or help deployment. Training that reaches all levels of the organization and effective communication pose the greatest challenge to Aldine. The efforts of the

district have yielded a marked improvement in alignment of all departments, especially between operations and curriculum. As Wanda Bamberg, Assistant Superintendent for Curriculum, points out, “More people in the organization understand how they impact student achievement and how they contribute to meeting the district objectives and goals.”

Granville County School District

The Granville County School District covers 531 square miles in northeast North Carolina adjacent to the Research Triangle Park and includes several cities, towns, boroughs, and communities. Oxford, the major municipality and site of the district administration office, is located 15 to 25 minutes away from Raleigh, Durham and Chapel Hill off of Interstate 85. Granville County, founded in 1746, is home to many families who have kept their roots and progeny in the county for centuries. With a population of approximately 48,500, Granville County continues to grow.

Granville County Schools is comprised 14 schools—2 high schools, 3 middle schools, 1 intermediate school, and 8 elementary schools with a growing student population of approximately 8,300. District enrollment includes 45% African American, 5% Hispanic, and 50% Anglo students. In addition, 13.6% of Granville’s students are served by the Exceptional Children’s Program, 9.4% are identified as Academically Gifted, 5% have limited proficiency in English, and 42% qualify for free or reduced lunch.

Granville employs an average of 128 classroom teachers, 21% of whom hold a master’s or other advanced degrees. Five teachers in Granville have achieved National Board Certification. Table 4.1 reflects the average years of teaching experience as reported in the North Carolina School Report Card.

| Table 4.1—Years of Teaching Experience of Teachers by Percent in Granville County Schools | | | | | | | | |
|---|-----------------|--------------|----------------|-----------------|--------------|----------------|-----------------|--------------|
| Elementary School | | | Middle School | | | High School | | |
| 0 – 3 Years | 4 – 10 Years | 10+ Years | 0 – 3 Years | 4 – 10 Years | 10+ Years | 0 – 3 Years | 4 – 10 Years | 10+ Years |
| 27% | 24% | 49% | 33% | 25% | 42% | 16% | 22% | 62% |

Overall, 28% of Granville’s teachers have fewer than 5 years professional experience and 14% of the teachers are within 5 years of retirement, and 7% are first year teachers.

Students in North Carolina must complete annual ABCs End-of-Grade tests in reading and mathematics in grades 3 through 8. High school students enrolled in English I, Algebra I, Algebra II, Geometry, Biology, Chemistry, Physical Science, ELPS (Economic, Legal and Political Systems), and US History must complete ABCs End-of-Course tests. The state reports these results and other accountability data through the North Carolina School Report Cards. Every school in North Carolina receives one of several designations based on their performance on the state’s ABCs tests. These designations consider the percentage of students performing at grade level and whether students have learned as much as they are expected to learn in one year (Table 4.2).

Table 4.2—North Carolina School Performance Designations

| | |
|-----------------------|--|
| School of Excellence | At least 90% of students at grade level & students made expected growth or more |
| School of Distinction | 80 to 89% of students at grade level & students made expected growth and more |
| School of Progress | At least 60 to 79% of students at grade level & students made expected growth or more |
| No Recognition | 60 to 100% of students at grade level, but students did not make expected growth |
| Priority School | 50 to 59% of students at grade level or less than 50% of students at grade level but students made expected growth |
| Low Performing | Less than 50% of students at grade level & students did not make expected growth |

These designations also consider student growth based on learning achieved in one year. Three rankings identify student growth; high growth whereby students exceed expected growth by at least 10%, expected growth, or expected growth is not achieved.

In 2001-2002, six Granville schools earned a School of Distinction rating, and two schools received a School of Progress designation. Although five schools received a ranking of No Recognition, each school showed improvement in student performance. Overall, the students in Granville schools continue to improve meeting the state expectations for student achievement at each grade level.

Granville began implementation of Total Quality Management (TQM) in 1991 when the district joined a three-district partnership among Granville, Johnston, and Alamance County Schools. The focus of this early venture centered the Deming philosophy of Profound Knowledge, the Fourteen Points, and the Seven Deadly Sins. The North Carolina Business Committee for Education (NCBCE) has been instrumental in raising funds to assist school systems that choose to adopt quality principles for school improvement. Superintendent, Tom Williams, served as Executive Director of NCBCE prior to his position in Granville and also participated on the writing team for the North Carolina Quality Leadership Foundation that introduced the first statewide Criteria for Performance Excellence for Education. Granville has maintained a partnership with the

NCBCE “Total Quality in Education” since 1993 and continues under the North Carolina Partnership for Excellence (NCPE), which was established in 1997 to implement TQM across the state.

According to Williams, central office leaders and principals receive the following training in order to develop a common knowledge base and frame of reference in which to deploy quality principles and the Baldrige Criteria:

1. Stephen Covey’s Seven Habits and Facilitative Leadership serve as a personal grounding in quality and leadership skills.
2. Deming’s Fourteen Points, Seven Deadly Sins, and Theory of Profound Knowledge (primarily the importance of Systems Thinking).
3. On-going training in the Baldrige Framework that the district refers to as the “High Performance Model” emphasizing the seven categories and the alignment of the district strategic planning process.
4. On-going training in utilizing Quality Tools for instruction and leadership functions.
5. On-going training and use of our continuous Improvement Teams based on the Plan-Do-Study-Act model.
6. On-going participation in statewide quality conferences and networking events through NCBCE and now, NCPE.

All employees, including teachers, in Granville benefit from training in quality principles beginning with an orientation on the High Performance Model focused on understanding the district vision, mission, operational principles (core values), and five strategic priorities that are validated by the community through annual Education

Summits. Employees also develop an understanding of how the model relates to their individual role “as a leader at every level” in the Granville system. Teachers also receive training in using quality tools in the classroom, which is based mainly on the book *Future Force-Kids That Want To, Can Do!: A Teacher’s Handbook for Using TQM* by Elaine McClanahan and Carolyn Wicks (1993). Many teachers also have the opportunity to receive Facilitative Leadership training and Continuous Improvement Team training in addition to participation in statewide quality conferences and networking events through NCBCE and now, NCPE.

Superintendent Williams cites five key factors that impact the district’s ability to implement the Baldrige Criteria as an integrated management system.

1. Leadership commitment and knowledge
2. Maintaining a long-term approach
3. Securing resources to fund professional development
4. Leadership’s ability to align other school improvement work into the Baldrige framework to reduce duplication of strategic planning from the Board level to the school and classroom level.
5. Persistence in maintaining ongoing education and training of both new and current employees.

These five factors also impose the greatest challenge to Granville as the district strives to adapt to the ever-changing educational environment.

The most important success at this point of Granville’s quality journey, according to Williams, includes “increased senior leadership knowledge and understanding of customer (community expectations), an expanded understanding of this by teachers and

principals, a well-aligned school and school system strategic planning process with a strong accountability component. This has led to better instruction, improved student achievement, a higher quality staff (with below the state average for teacher turnover), and solid community support.”

Portales Municipal School District

Portales Municipal School District serves the city of Portales, New Mexico and the surrounding rural agricultural communities covering 350 square miles in the high plains of Eastern New Mexico. Cannon Air Force Base, 11 miles northeast of Portales, contributes to the economy of the city with more than 150 families associated with the base living in Portales. Eastern New Mexico University, the third largest university in the state, is located in Portales. Nearby metropolitan cities include Roswell 90 miles to the southwest; Lubbock, Texas 100 miles southeast; Amarillo, Texas 110 miles northeast; and, Albuquerque 240 miles northwest of Portales. A steady economy in the area has also triggered a consistent growth in population.

The district has a student enrollment of approximately 2,800 with one high school, one junior high school, five elementary schools and one alternative school. The student demographics include 48.5% Anglo, 47.4% Hispanic, 1.9% African American, 2.2% other ethnic backgrounds, and, 57% classified as economically disadvantaged based on the eligibility for free or reduced lunch. The dropout rate for Portales falls below 3%.

Portales employs approximately 250 people, which includes teachers, instruction aides, counselors, librarians/media specialists, district administrators, and campus administrators. Between 60 and 65 percent of the teachers hold master's degrees or higher. The student/teacher ratio in Portales averages 15.5:1.

In 2000, the New Mexico State Board of Education implemented a statewide accountability program for public schools. The state accountability system uses a four tier rating system centered on six statewide indicators that include student achievement, attendance, dropout rate, parent and community involvement, school safety, and the high school graduation rate. Schools receive data points derived from a state developed data point matrix for each indicator that results in a rating of Exemplary, Exceeds Standards, Meets Standards, and Probationary. From these ratings, an overall school rating emerges based on the following:

- Exemplary: 50% or more data points are Exemplary and 0% are Probationary
- Exceeds Standards: 50% or more data points are in Exceeds Standards or higher, not more than one data point is Probationary
- Meets Standards: 50% of data points are in Meets Standards or higher
- Probationary: 50% or more data points are in Probationary.

To measure student achievement, the state administers two tests in grades 3 through 9. The first is the Terra Nova, which is a national, norm-referenced test used to compare New Mexico's students' performance in reading, language arts, mathematics, and science to that of peers nationwide. The state also administers

standards-based tests that measure student mastery of specific grade level skills. In addition, the state tests students in writing at grades 4, 6, and optionally at grade 8.

Since the inception of the state accountability program, all Portales schools have received a rating of Meets Standards; in 2002, Portales High School received a rating of Exceeds Standards. Although the state accountability system is fairly new, Portales schools continue to meet the standards of the state.

The Portales quality journey began in 1997 with a “Quality Team” at each school that received training through Strengthening Quality in Schools (SQS). The New Mexico Governor’s Business Executives for Education (GBEE) established the SQS to provide expertise needed to develop a world-class quality education system in the state. Portales formed 9 quality teams, one for each of the eight campuses, and a central office team. Each team included five to six people with campus teams including the principal and the central office team including the superintendent.

Both central office and campus administrators received training through SQS in addition to contracted training with Quality providers in those areas not addressed by SQS. Each summer, the district holds strategic planning sessions utilizing the Baldrige framework with the assistance of a facilitator knowledgeable in the Criteria. Teachers, who make up the majority of the quality team membership have also received extensive training in quality principles, and the district has also sent teachers to “train the trainer” workshops to further deploy quality principles in classrooms. The district held a two-day training in the summer of 2002 for all employees on Baldrige Processes and will schedule similar sessions for new teachers prior to the beginning of school each fall.

Portales Municipal School Superintendent, Jim Holloway, notes three key factors impacting the district's ability to implement the Baldrige Criteria:

1. General resistance to change;
2. Turnover of staff, especially in key leadership roles and the need to continually train staff;
3. Available funds for professional development and the lack of understanding of the significance of staff training.

In spite of these factors, the district has seen positive results with individuals who have resisted starting to come on board.

Holloway describes the greatest challenge for Portales centers on the realization that, "The quality improvement process is not a quick fix, and results are not immediate. Keeping the "faith" alive and well until results are evident is the hardest. Those who apply the processes early become true believers." The hardest to reach individuals remain those who view the quality improvement principles as a fad that will pass away the same as other ill-fated initiatives.

The struggle toward building a high performing organization has yielded several important successes for Portales. The district has received over ten New Mexico Quality awards to the various divisions of the system, and Baldrige processes are evident in each school in the district. The Board of Education for Portales has also committed to the deployment of the Baldrige processes as the means for developing an integrated management system focused on quality.

Results and Analysis of Research Question 1

Research question 1 asks, “What are the perceptions of central office leaders, principals, and teachers of the extent of implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy?” The instrument asked panel members to respond to the extent that Baldrige Criteria Item, probed by the question, had been implemented in the district, how difficult it was to implement in the district, and how the implementation of the management process impacted collective teacher efficacy. The analysis of this research question utilized the aggregate responses of each panel group from the participating districts and the aggregate of all responses.

The data were organized by each of the three Likert scale responses: the extent of implementation of the Criteria, the difficulty of implementation of the Criteria, and the impact of implementation of the Criteria on collective teacher efficacy. Histograms display the data for analyses and include the mean and standard deviation of the responses. The following discussion will also utilize the cross tabulation of data for each question and Likert scale to determine consensus within and among groups applying the consensus rule as defined in Chapter III.

Leadership

Questions 1 through 6 of the study questionnaire relate to Category 1 of the Baldrige Education Criteria for Performance Excellence, Leadership. Category 1 examines how leaders address organizational values, directions, and performance

expectations with a focus on how these elements focus on students and stakeholders, student learning, empowerment, organizational learning, and innovation. This Category also considers how an organization meets its responsibilities to the public and practices good citizenship in the community.

Item 1.1 Organizational Leadership. Questions 1 through 3 specifically link to Baldrige Criteria assessment Item 1.1 Organizational Leadership and focus on how senior leaders establish and deploy core values and performance expectations throughout the organization balancing value for both students and stakeholders to create an environment that promotes ethical behavior, equity for all students, empowerment, and innovation. This Item also examines how senior leaders review performance data related to the district's priorities, assess progress toward those priorities, communicate the findings, and act on those findings to move the district to future success.

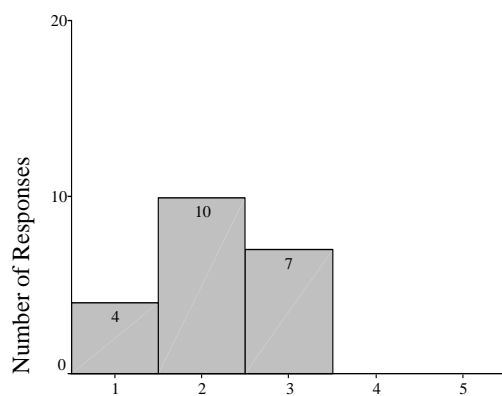
Question 1 asked, "To what extent have district leaders established core values and performance expectations?" Figures 4.3.a through 4.3.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 1.

Figure 4.3.a. Research Question (RQ) 1 Question 1: Extent of Implementation of the Baldrige Education Criteria

1. To what extent have district leaders established core values and performance expectations?

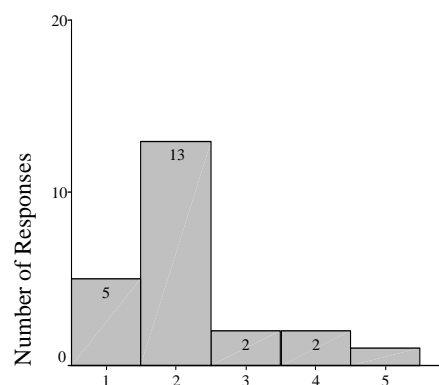
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



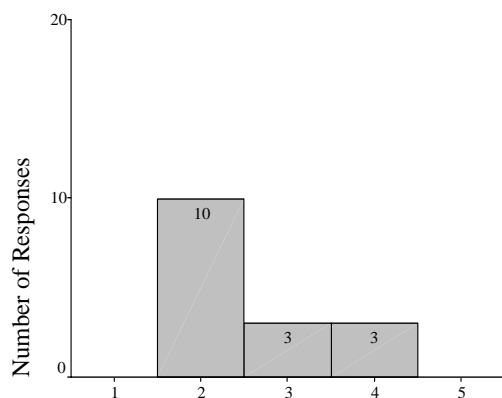
Implementation Question 1 - Central Office

N = 21 Mean = 2.14 SD = .73



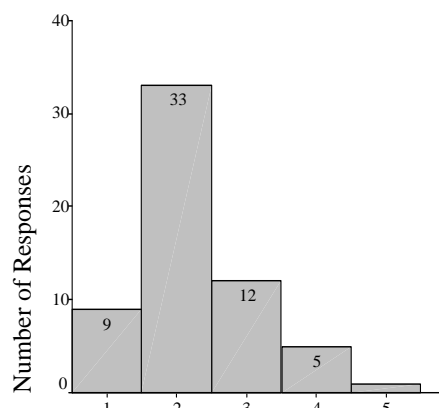
Implementation Question 1 - Principals

N = 23 Mean = 2.17 SD = 1.03



Implementation Question 1 - Teachers

N = 16 Mean = 2.56 SD = .81



Implementation Question 1 - Aggregate

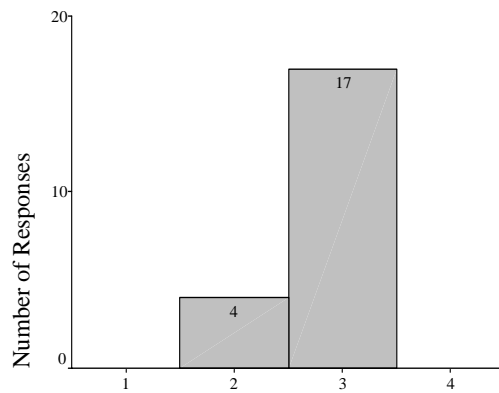
N = 60 Mean = 2.27 SD = .88

Figure 4.3.b. RQ 1 Question 1: Difficulty of Implementation of the Baldrige Education Criteria

1. To what extent have district leaders established core values and performance expectations?

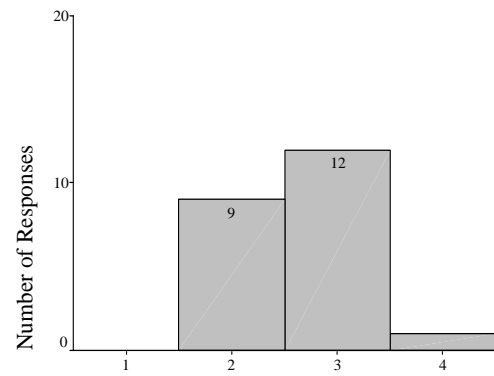
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



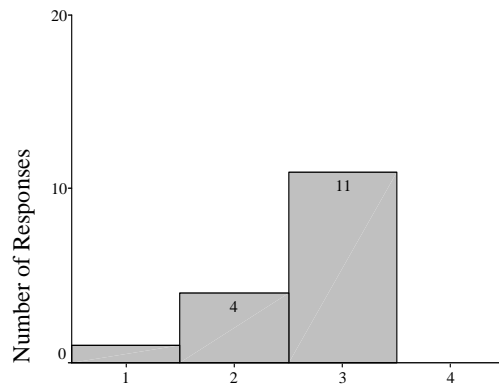
Difficulty Question 1 - Central Office

N = 21 Mean = 2.81 SD = .40



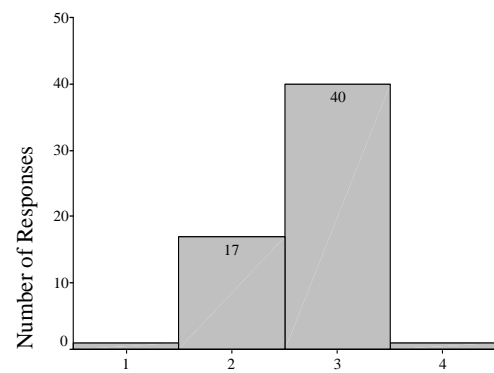
Difficulty Question 1 - Principals

N = 23 Mean = 2.64 SD = .58 NO = 1



Difficulty Question 1 - Teachers

N = 16 Mean = 2.63 SD = .62



Difficulty Question 1 - Aggregate

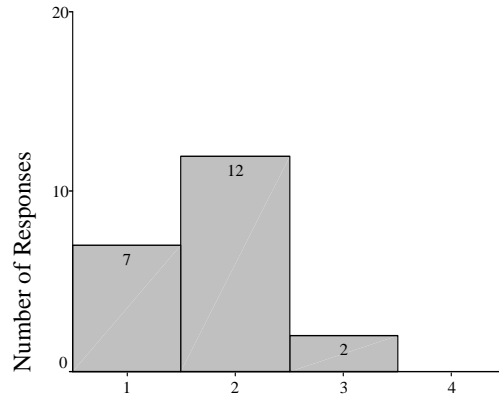
N = 60 Mean = 2.69 SD = .53 NO = 1

Figure 4.3.c. RQ 1 Question 1: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

1. To what extent have district leaders established core values and performance expectations?

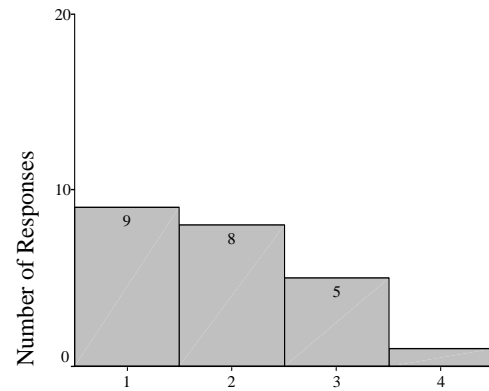
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



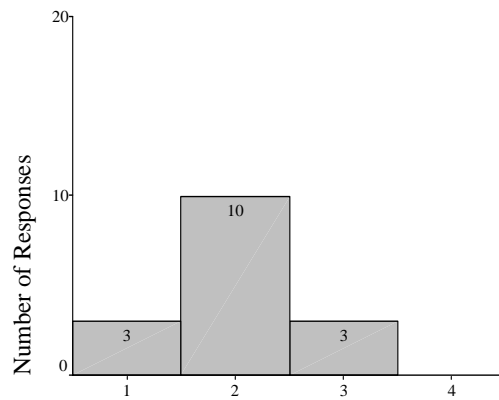
Impact Question 1 - Central Office

N = 21 Mean = 1.76 SD = .62



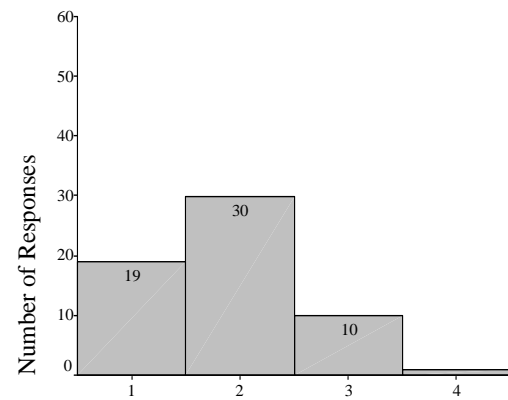
Impact Question 1 - Principals

N = 23 Mean = 1.91 SD = .90



Impact Question 1 - Teachers

N = 16 Mean = 2.00 SD = .63



Impact Question 1 - Aggregate

N = 60 Mean = 1.88 SD = .74

The data for question 1 reveal no clear consensus across panel groups regarding the extent of implementation. The greatest dispersion of responses was in the principal panel group ($SD = 1.03$), but 62.5% of the teachers agreed on the extent of implementation. All panel groups reached consensus on the difficulty of implementation with the least variance in the central office panel ($SD = .40$) where 81% perceived this Item as difficult to implement. Overall, the panels perceived a moderate to strong impact on collective teacher efficacy with the greatest variance among principals ($SD = .90$) but the strongest consensus among teachers and central office.

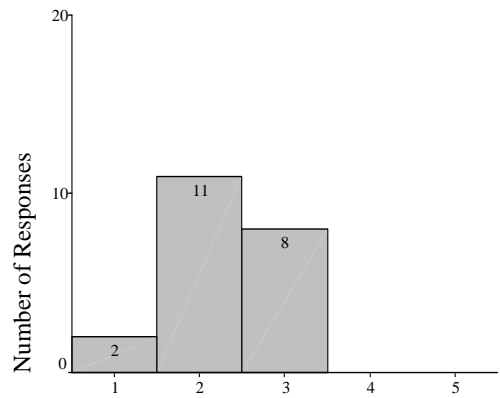
Question 2 asked, “To what extent have district leaders communicated the core values and performance expectations?” Figures 4.4.a through 4.4.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 2.

Figure 4.4.a. RQ 1 Question 2: Extent of Implementation of the Baldrige Education Criteria

2. To what extent have district leaders communicated the core values and performance expectations?

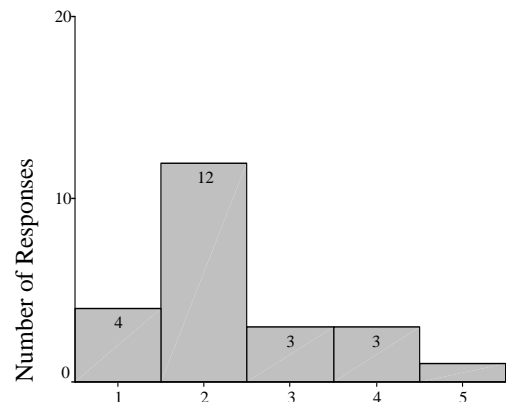
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



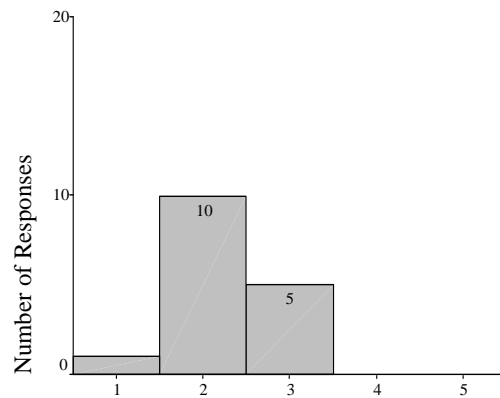
Implementation Question 2 - Central Office

N = 21 Mean = 2.29 SD = .64



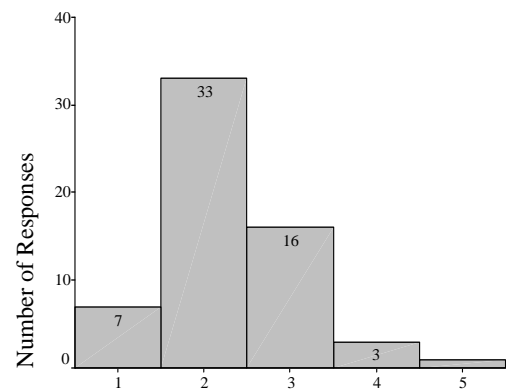
Implementation Question 2 - Principals

N = 23 Mean = 2.35 SD = 1.07



Implementation Question 2 - Teachers

N = 16 Mean = 2.25 SD = .58

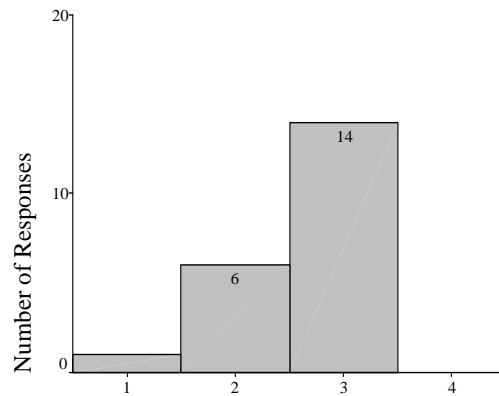


Implementation Question 2 - Aggregate

N = 60 Mean = 2.30 SD = .81

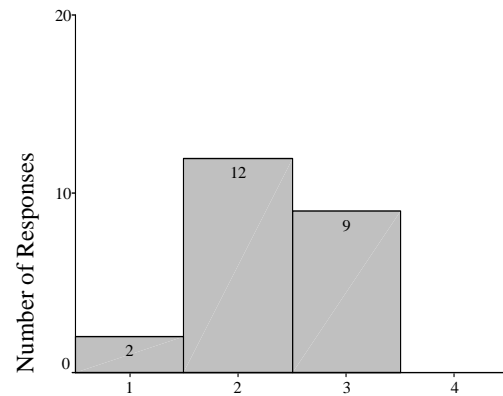
Figure 4.4.b. RQ 1 Question 2: Difficulty of Implementation of the Baldrige Education Criteria**2. To what extent have district leaders communicated the core values and performance expectations?***Difficulty of Implementation Scale*

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



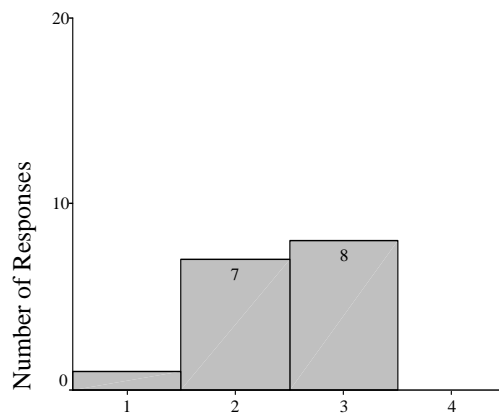
Difficulty Question 2 - Central Office

N = 21 Mean = 2.62 SD = .59



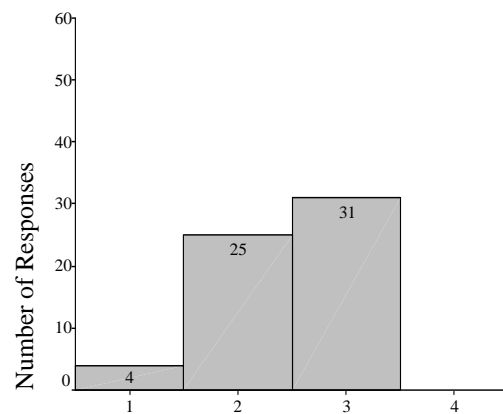
Difficulty Question 2 - Principals

N = 23 Mean = 2.30 SD = .63



Difficulty Question 2 - Teachers

N = 16 Mean = 2.44 SD = .63



Difficulty Question 2 - Aggregate

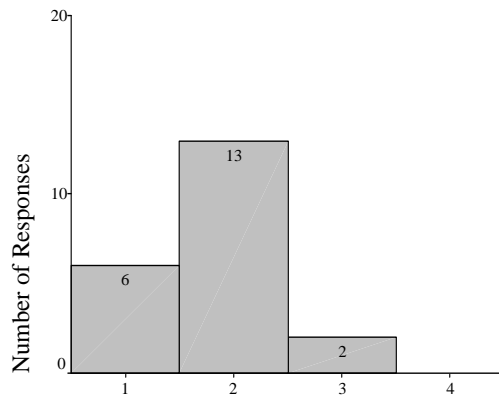
N = 60 Mean = 2.45 SD = .62

Figure 4.4.c. RQ 1 Question 2: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

2. To what extent have district leaders communicated the core values and performance expectations?

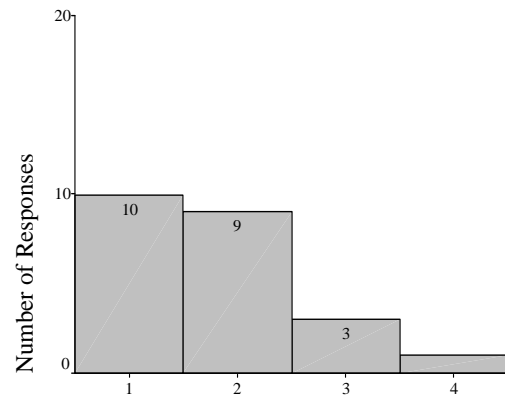
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



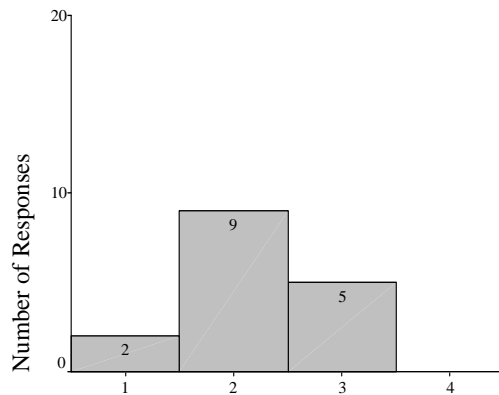
Impact Question 2 - Central Office

N = 21 Mean = 1.81 SD = .60



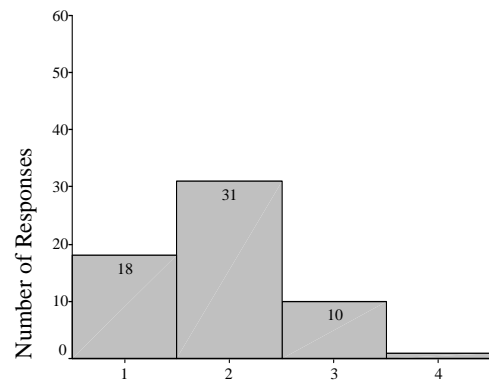
Impact Question 2 - Principals

N = 23 Mean = 1.78 SD = .85



Impact Question 2 - Teachers

N = 16 Mean = 2.19 SD = .66



Impact Question 2 - Aggregate

N = 60 Mean = 1.90 SD = .73

For question 2, central office leaders (84.4%) and teachers (93.8%) considered this area reasonably to well-integrated in their organization. Principal's responses to the extent of implementation varied across the scale ($SD = 1.07$). The aggregated responses also indicated high variance ($SD = .81$) and no consensus among the panels. Central office leaders responded that this area was difficult to implement, and principals (52.2%) perceived this area as easy to implement. Teachers were almost equally divided between easy and difficult to implement. Although the aggregate data indicated implementation as difficult (51%), there was not consensus among the panel groups with 41% responding that this area was easy to implement. Responses by principals to the level of impact on collective efficacy varied ($SD = .85$) from strong to "no" impact. Most of the responses from central office (90.5%) considered impact moderate to "strong," and teachers (56.3%) responded that impact was "moderate."

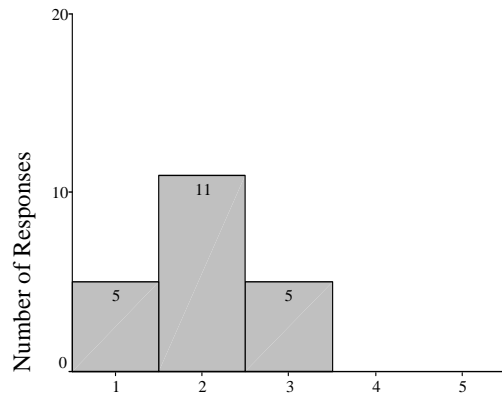
Question 3 asked, "To what extent have district leaders reviewed district performance to assess progress of goals? Figures 4.5.a through 4.5.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 3.

Figure 4.5.a. RQ 1 Question 3: Extent of Implementation of the Baldrige Education Criteria

3. To what extent have district leaders reviewed district performance to assess progress of goals?

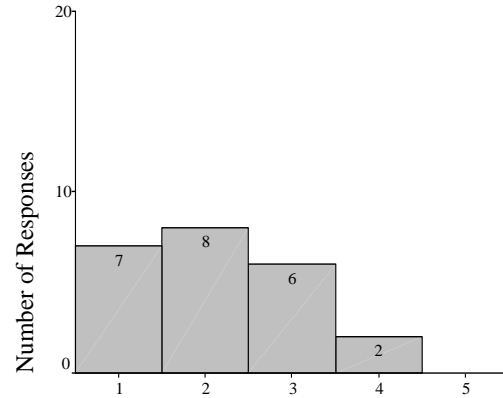
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



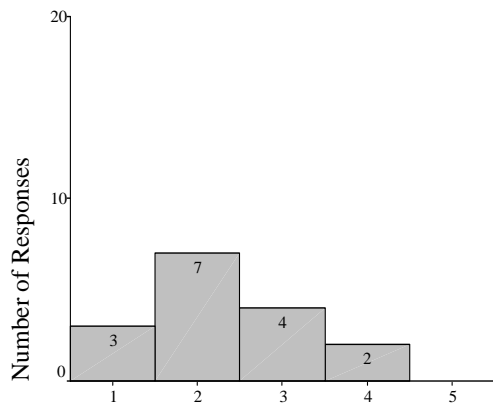
Implementation Question 3 - Central Office

N = 21 Mean = 2.00 SD = .71



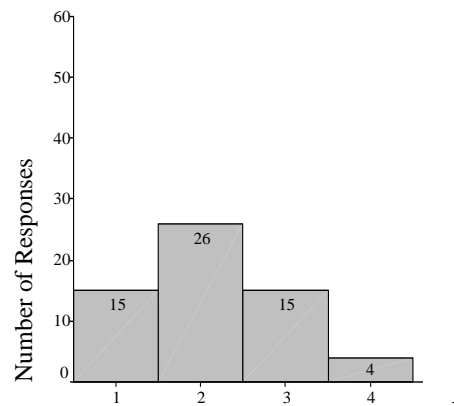
Implementation Question 3 - Principals

N = 23 Mean = 2.13 SD = .97



Implementation Question 3 - Teachers

N = 18 Mean = 2.31 SD = .95



Implementation Question 3 - Aggregate

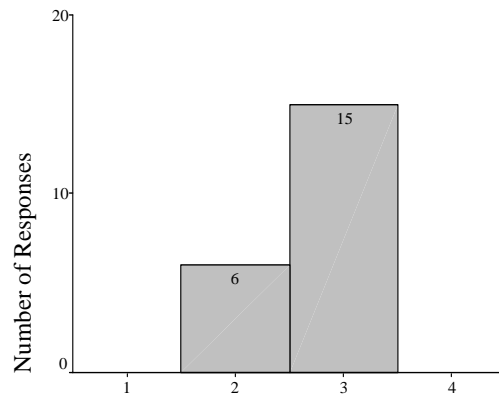
N = 60 Mean = 2.13 SD = .87

Figure 4.5.b. RQ 1 Question 3: Difficulty of Implementation of the Baldrige Education Criteria

3. To what extent have district leaders reviewed district performance to assess progress of goals?

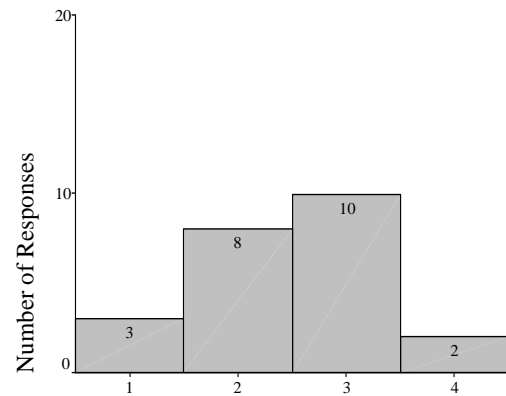
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



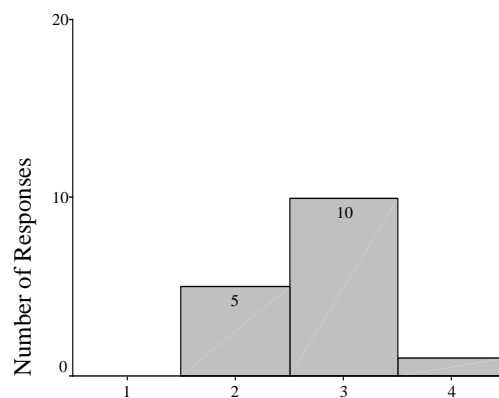
Difficulty Question 3 - Central Office

N = 21 Mean = 2.71 SD = .46



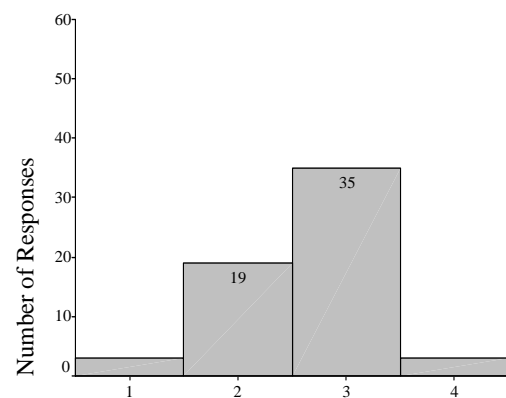
Difficulty Question 3 - Principals

N = 23 Mean = 2.48 SD = .85



Difficulty Question 3 - Teachers

N = 21 Mean = 2.75 SD = .58



Difficulty Question 3 - Aggregate

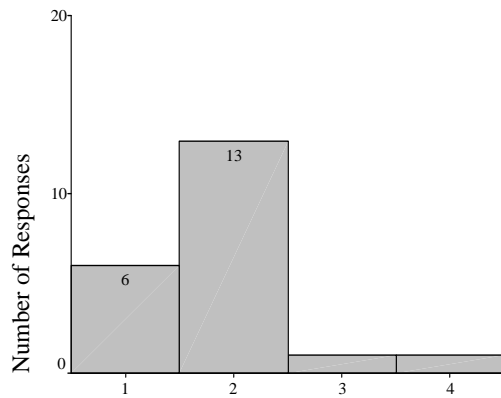
N = 60 Mean = 2.63 SD = .66

Figure 4.5.c. RQ 1 Question 3: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

3. To what extent have district leaders reviewed district performance to assess progress of goals?

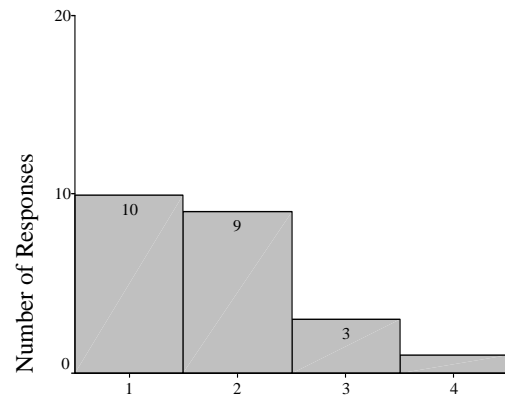
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



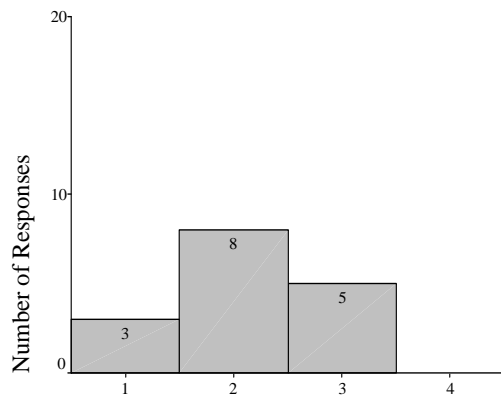
Impact Question 3 - Central Office

N = 21 Mean = 1.86 SD = .73



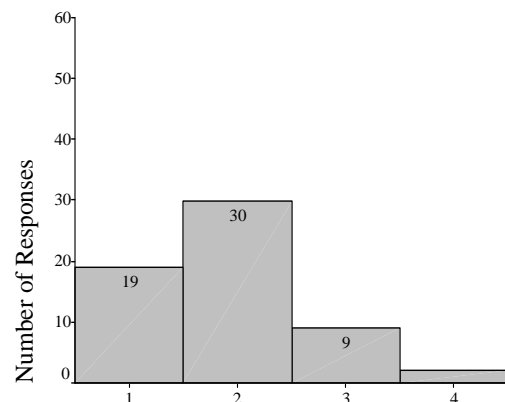
Impact Question 3 -Principals

N = 23 Mean = 1.78 SD = .85



Impact Question 3 - Teachers

N = 16 Mean = 2.13 SD = .72



Impact Question 3 - Aggregate

N = 60 Mean = 1.90 SD = .77

All panel groups revealed a dispersion of responses to the extent of implementation. Principal ($SD = .97$) and teacher ($SD = .95$) responses ranged from 1 to 4 on the implementation Likert scale. Central office and teachers responded that implementation was “difficult,” while principal responses ranged from “very easy” to “very difficult.” Central office (90.5%) and principals (82.6%) responses indicate strong to moderate impact on collective efficacy with 61.9% of central office responding to moderate impact. Teacher responses ranged from strong to limited impact.

Several trends emerged in each panel group and across the panel groups for the three questions related to Item 1.1 Organizational Management. The greatest consensus and the least variance of responses came from the central office panel group while the greatest variance occurred among principals. Teachers showed the greatest variance in response to question 3 extent of implementation, difficulty of implementation, and impact on collective efficacy. The aggregate responses reflect that organizational management has a systematic approach that is well integrated and implemented but is difficult to implement with a moderate to strong impact on collective teacher efficacy.

1.2 Public Responsibility and Citizenship. Questions 4 through 6 specifically link to Baldrige Criteria assessment Item 1.2 Public Responsibility and Citizenship, which looks at how the organization fulfills its public responsibility and practices good citizenship. This Item examines how the organization considers current and future impacts on society and how the organization ensures ethical practices in all its interactions with students and stakeholders. Critical to this area is whether the organization takes a proactive stance toward legal, accreditation, and regulatory requirements. In addition, this Item looks at how senior leaders, as well as faculty and staff, promote good citizenship by actively identifying and supporting key communities and how that involvement supports the organization's mission and core values.

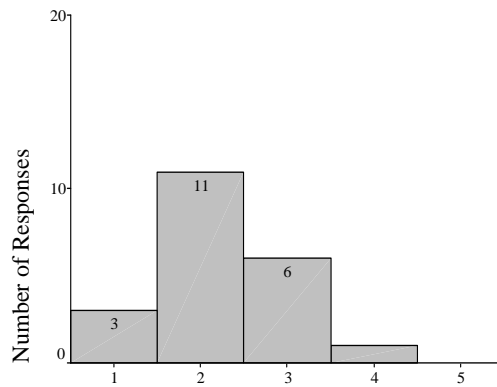
Question 4 asked, "To what extent have district leaders examined the changing needs and capabilities of the district to ensure continuous improvement?" Figures 4.6.a through 4.6.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 4.

Figure 4.6.a. RQ 1 Question 4: Extent of Implementation of the Baldrige Education Criteria

4. To what extent have district leaders examined the changing needs and capabilities of the district to ensure continuous improvement?

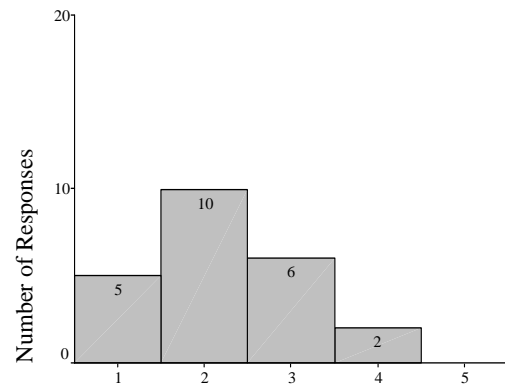
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



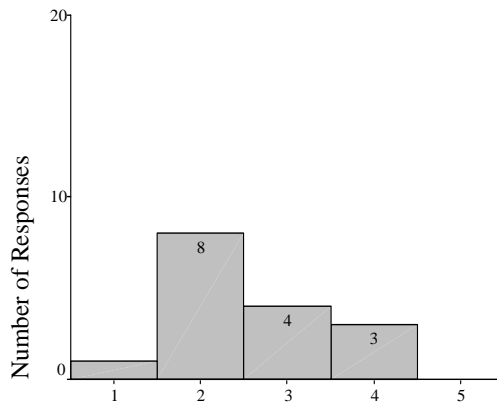
Implementation Question 4 -Central Office

N = 21 Mean = 2.24 SD = .77



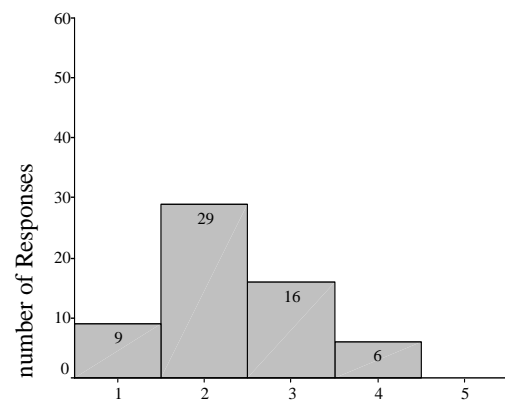
Implementation Question 4 - Principals

N = 23 Mean = 2.22 SD = .90



Implementation Question 4 -Teachers

N = 16 Mean = 2.56 SD = .89



Implementation Question 4 - Aggregate

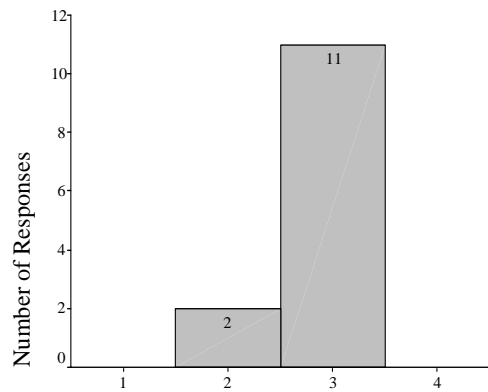
N = 60 Mean = 2.32 SD = .85

Figure 4.6.b. RQ 1 Question 4: Difficulty of Implementation of the Baldrige Education Criteria

4. To what extent have district leaders examined the changing needs and capabilities of the district to ensure continuous improvement?

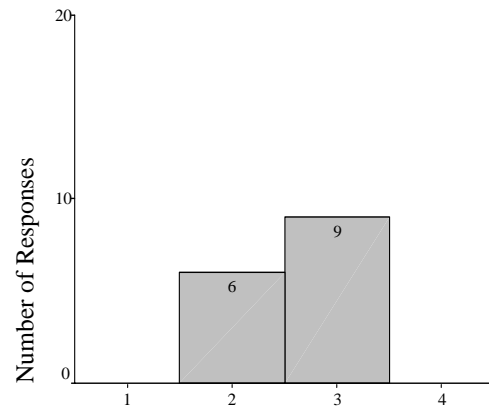
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



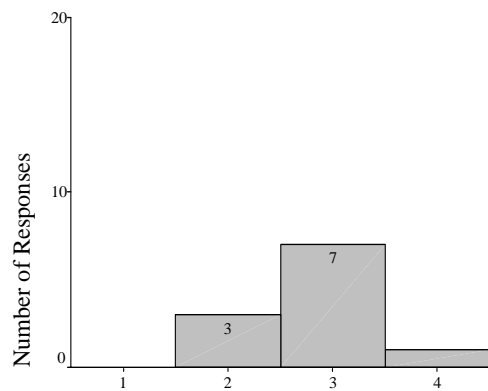
Difficulty Question 4 - Central Office

N = 13 Mean = 2.85 SD = .38



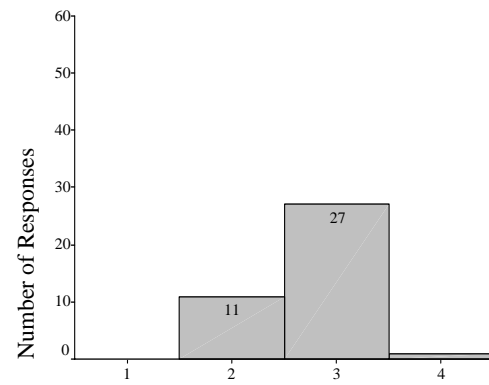
Difficulty Question 4 - Principals

N = 15 Mean = 2.60 SD = .51



Difficulty Question 4 - Teachers

N = 11 Mean = 2.82 SD = .60



Difficulty Question 4 Aggregate

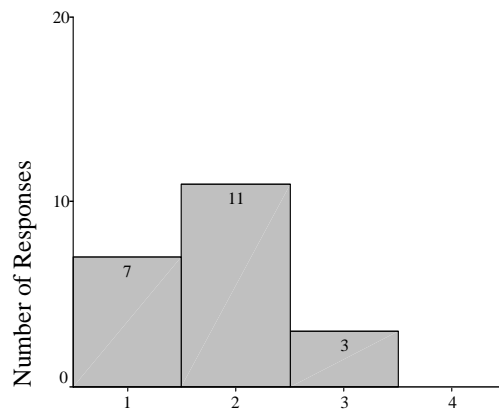
N = 39 Mean = 2.74 SD = .50

Figure 4.6.c. RQ 1 Question 4: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

4. To what extent have district leaders examined the changing needs and capabilities of the district to ensure continuous improvement?

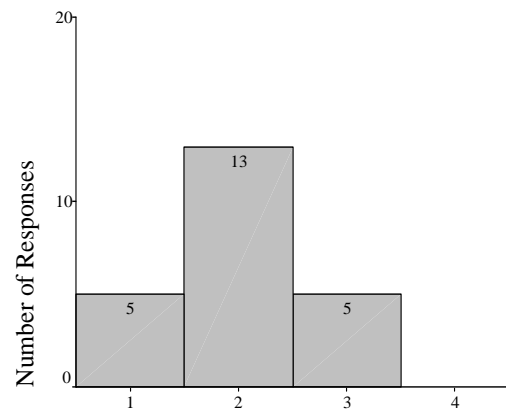
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



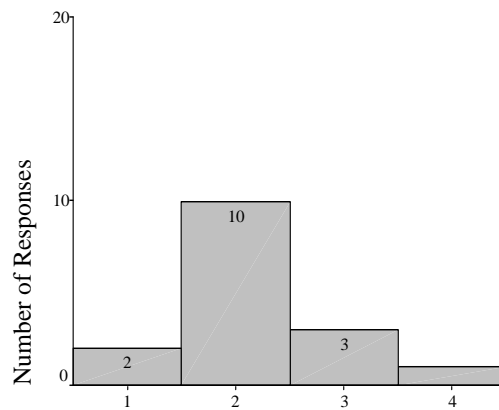
Impact Question 4 - Central Office

N = 21 Mean = 1.81 SD = .68



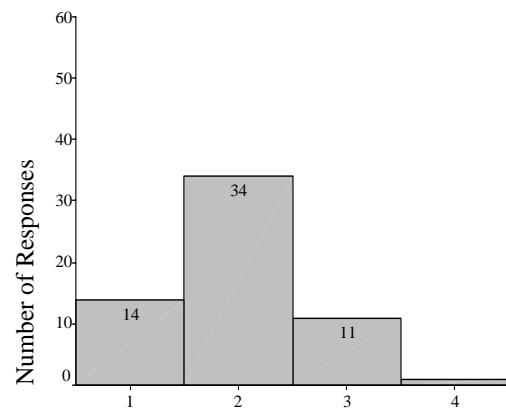
Impact Question 4 - Principals

N = 23 Mean = 2.00 SD = .67



Impact Question 4 - Teachers

N = 16 Mean = 2.19 SD = .75



Impact Question 4 - Aggregate

N = 60 Mean = 1.98 SD = .70

The responses for question 4 to the extent of implementation varied in all panel groups from a scale rating of 1 to 4 indicating a systematic approach in its early stages of planning and implementation; however, most of the responses indicated that a systematic approach was well integrated and implemented.

The data for the “Difficulty of Implementation” scale includes data from only Aldine and Portales. The responses from Granville for this scale were not reported as a result of a technical error in the on-line survey. Since only a portion of Granville’s responses was received, the data was excluded for this analysis. The data from the two remaining districts show consensus across all panel groups and the aggregate that implementation in this area is difficult with little variance of responses (central office, $SD = .38$; principals, $SD = .51$; teachers, $SD = .60$).

The impact on collective efficacy was viewed by the majority of each panel group as strong to moderate representing 75% to 85% of the responses. The greatest variance in responses for this question came from the teacher panel.

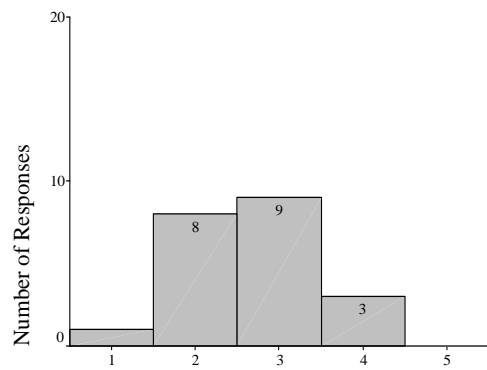
Question 5 asked, “To what extent have district leaders facilitated the use of district resources (e.g. facilities, extended outreach programs, community education, etc.) for the community?” Figures 4.7.a through 4.7.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 5.

Figure 4.7.a. RQ 1 Question 5: Extent of Implementation of the Baldrige Education Criteria

5. To what extent have district leaders facilitated the use of district resources (e.g. facilities, extended outreach programs, community education, etc.) for the community?

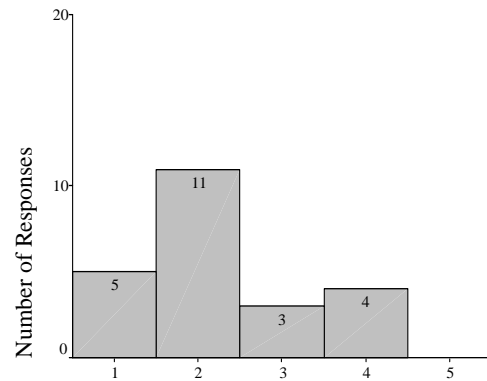
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



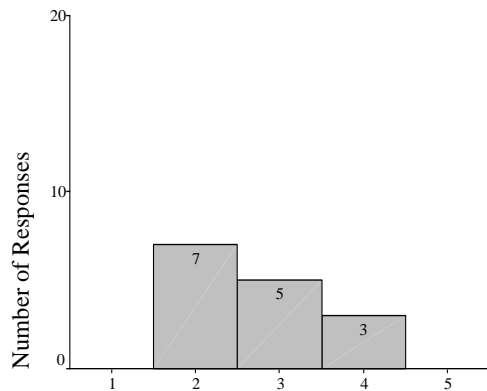
Implementation Question 5-Central Office

N = 21 Mean = 2.71 SD = .90



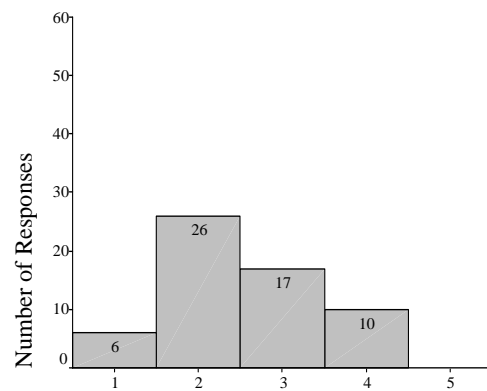
Implementation Question 5 - Principals

N = 23 Mean = 2.35 SD = 1.19



Implementation Question 5 - Teachers

N = 16 Mean 2.73 SD = .80 NO = 1



Implementation Question 5 - Aggregate

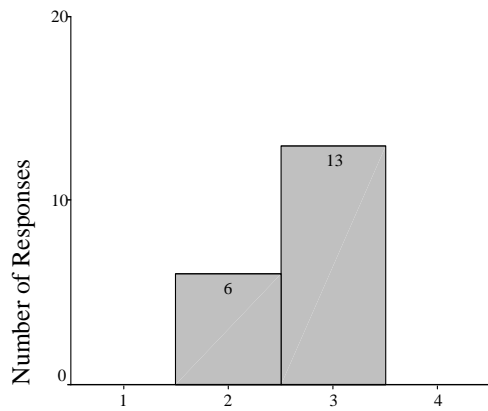
N=60 Mean=2.59 SD=1.00 NO=1

Figure 4.7.b. RQ 1 Question 5: Difficulty of Implementation of the Baldrige Education Criteria

5. To what extent have district leaders facilitated the use of district resources (e.g. facilities, extended outreach programs, community education, etc.) for the community?

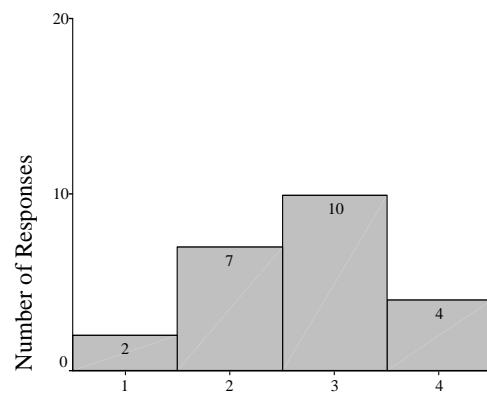
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



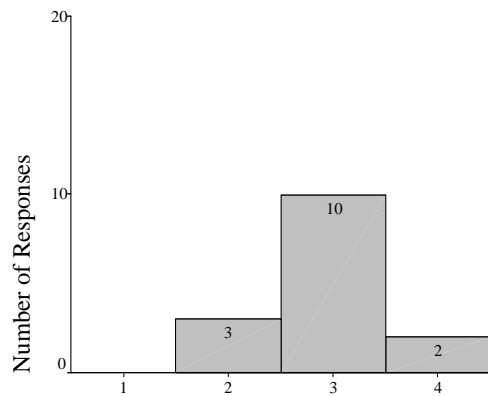
Difficulty Question 5 - Central Office

N=21 Mean=2.68 SD=.48 NO=2



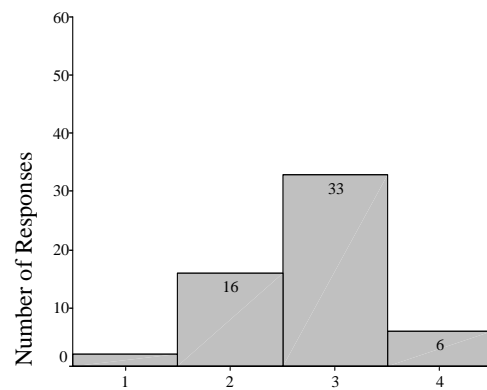
Difficulty Question 5 - Principals

N = 23 Mean = 2.70 SD = .88



Difficulty Question 5 - Teachers

N = 16 Mean = 2.93 SD = .59 NO = 1



Difficulty Question 5 - Aggregate

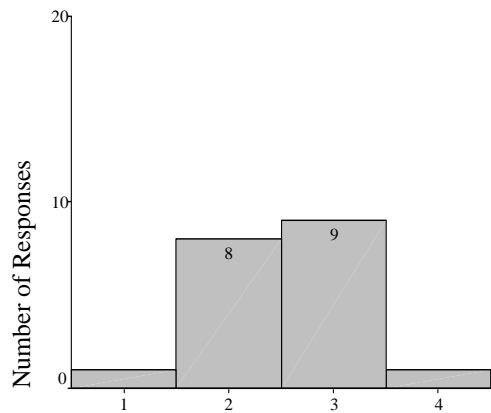
N = 60 Mean = 2.75 SD = .69 NO = 3

Figure 4.7.c. RQ 1 Question 5: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

5. To what extent have district leaders facilitated the use of district resources (e.g. facilities, extended outreach programs, community education, etc.) for the community?

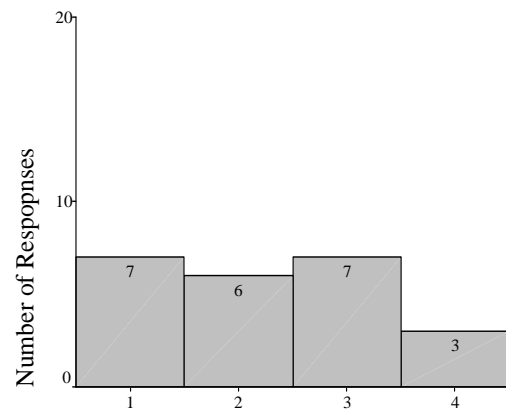
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



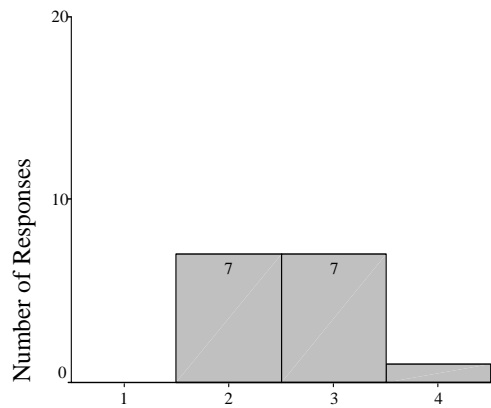
Impact Question 5 - Central Office

N = 21 Mean = 2.53 SD = .70 NO = 2



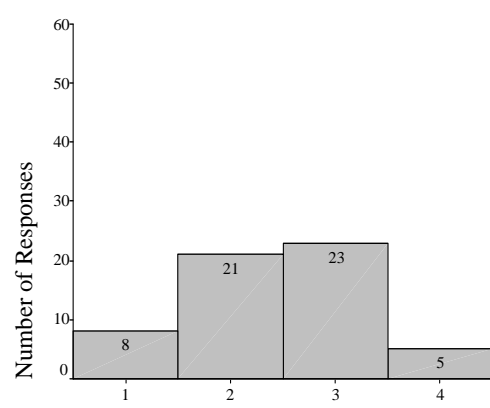
Impact Question 5 - Principals

N = 23 Mean = 2.26 SD = 1.05



Impact Question 5 - Teachers

N = 16 Mean = 2.60 SD = .63 NO = 1



Impact Question 5 - Aggregate

N = 60 Mean = 2.44 SD = .85 NO = 3

The standard deviation for question 5 for all panel groups ranged from .90 to 1.19 with the aggregate data at 1.00 indicating the dispersion of the responses regarding the extent of implementation. The largest variance was among the principal panel. The central office and teacher panels agreed that this area was “difficult” to implement, but principal responses varied from “very easy” to “very difficult.” While consensus was reached in the central office and teacher panels, three members responded, “not observed.” Considerable variance in responses is also reflected in the impact on collective efficacy, but most responses for central office (81%) and teachers (87.6%) as well as the aggregate (70.8%) indicated moderate to limited impact. Principal responses ranged from strong to “no” impact.

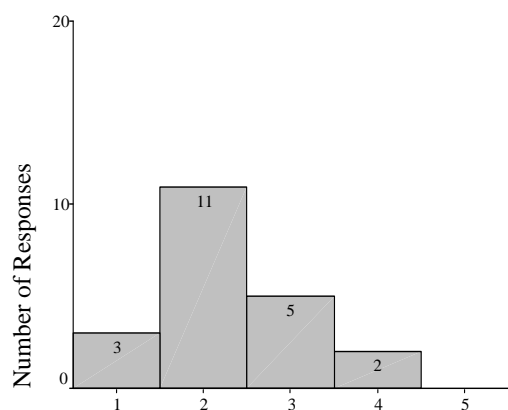
Question 6 asked, “To what extent have district leaders ensured ethical practices in all interactions with students and stakeholders?” Figures 4.8.a through 4.8.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 6.

Figure 4.8.a. RQ 1 Question 6: Extent of Implementation of the Baldrige Education Criteria

6. To what extent have district leaders ensured ethical practices in all interactions with students and stakeholders?

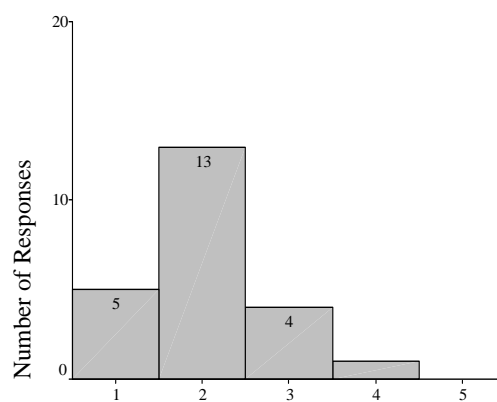
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



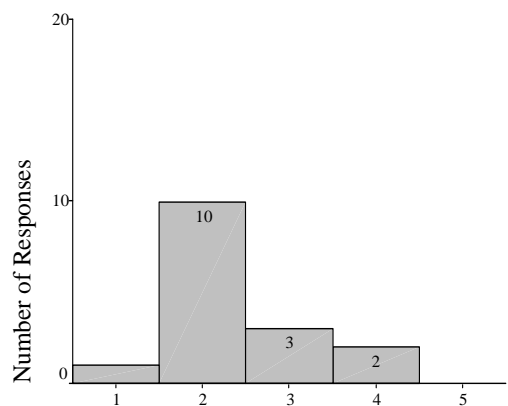
Implementation Question 6 - Central Office

N = 21 Mean = 2.33 SD = .97



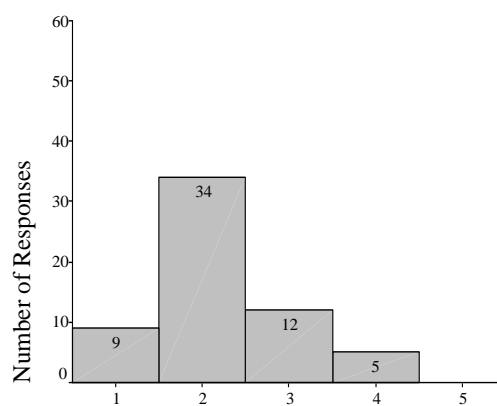
Implementation Question 6 - Principals

N = 23 Mean = 2.09 SD = .90



Implementation Question 6 - Teachers

N = 16 Mean = 2.44 SD = .96



Implementation Question 6 - Aggregate

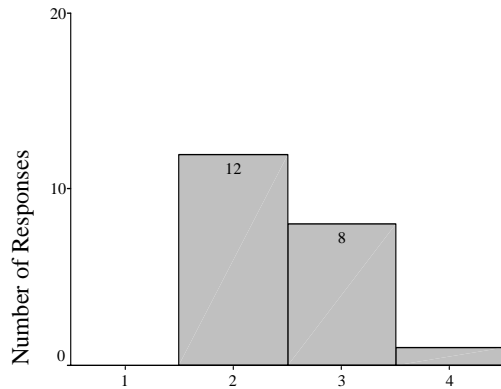
N = 60 Mean = 2.27 SD = .94

Figure 4.8.b. RQ 1 Question 6: Difficulty of Implementation of the Baldrige Education Criteria

6. To what extent have district leaders ensured ethical practices in all interactions with students and stakeholders?

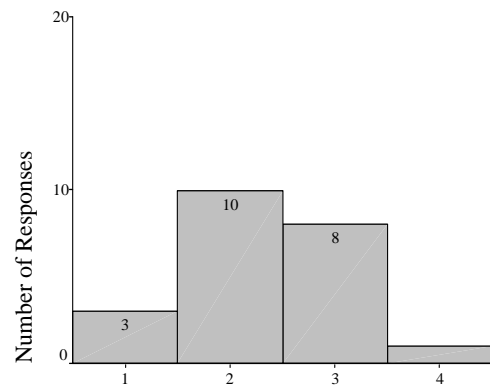
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



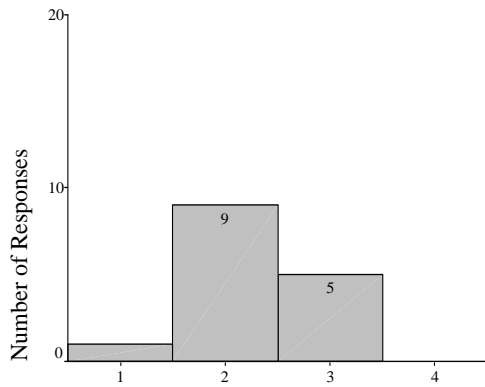
Difficulty Question 6 - Central Office

N = 21 Mean = 2.48 SD = .60



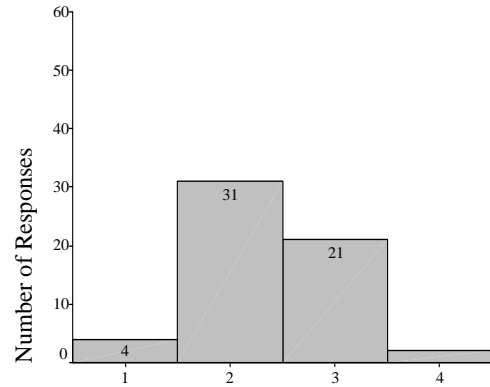
Difficulty Question 6 - Principals

N = 23 Mean = 2.32 SD = .78 NO = 1



Difficulty Question 6 - Teachers

N = 16 Mean = 2.27 SD = .59 NO = 1



Difficulty Question 6 - Aggregate

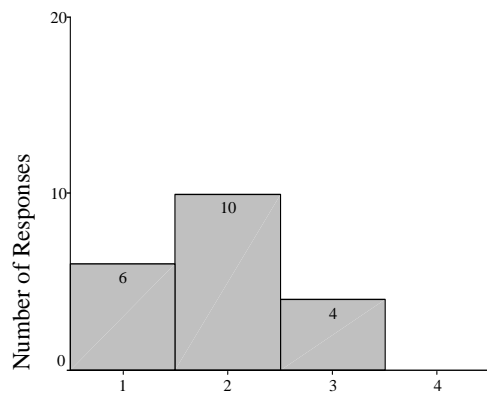
N = 60 Mean = 2.36 SD = .67 NO = 2

Figure 4.8.c. RQ 1 Question 6: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

6. To what extent have district leaders ensured ethical practices in all interactions with students and stakeholders?

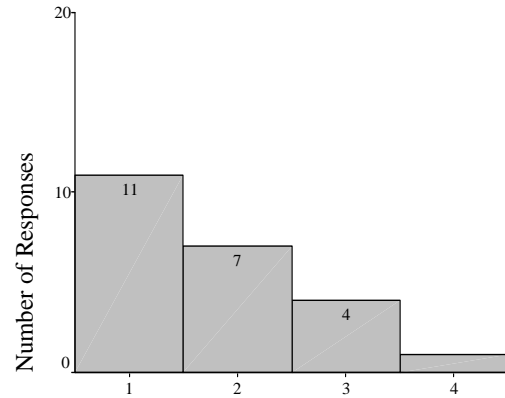
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



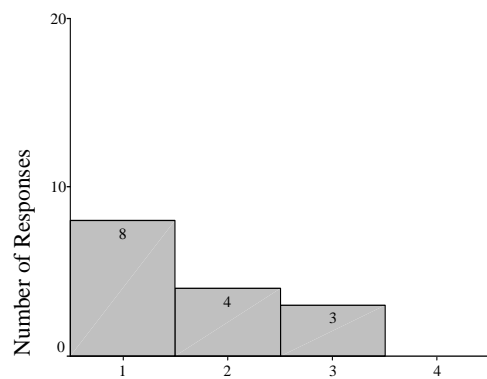
Impact Question 6 - Central Office

N = 21 Mean = 1.90 SD = .72 NO = 1



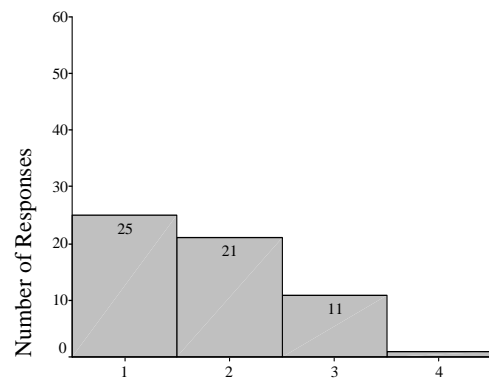
Impact Question 6 - Principals

N = 23 Mean = 1.78 SD = .90



Impact Question 6 - Teachers

N = 16 Mean = 1.67 SD = .82 NO = 1



Impact Question 6 - Aggregate

N = 60 Mean = 1.79 SD = .81 NO = 2

Question 6 fell slightly short of reaching consensus on the extent of implementation across all panel groups, and each group gave responses from 1 to 5 on the scale resulting in standard deviations from .90 to .97. Most responses show a “systematic approach, well integrated and implemented” by 52.4% of central office, 56.5% of principals, and 62.5% of teachers. No clear consensus regarding the difficulty of implementation emerged with standard deviations of .60 (central office), .78 (principals), and .59 (teachers); however, the majority of responses showed this area as easy to implement. When considering the impact on collective teacher efficacy, panel responses ranged from strong to “no” impact” with the majority of responses in all groups centering on strong to moderate impact.

The data from the questions related to Item 1.2 Public Responsibility and Citizenship revealed that the extent of implementation, difficulty of implementation, and the impact on collective teacher efficacy varied widely across the panel groups for all the questions. In spite of the degree of variation, the central office panel generally responded around two adjacent scale Items. For instance, the majority of responses to the extent of implementation were 2 or 3 and impact responses were either strong and moderate or moderate and “limited.” Principals and teachers exhibited the greatest variance in responses to all questions and scales.

Strategic Planning

The Strategic Planning Category of the Baldrige Education Criteria examines how the organization develops strategic objectives and action plans, how those plans are deployed, and how the organization measures progress of those plans. Questions 7 through 10 address Category 2, which does not prescribe any particular strategic planning model but rather that a process exists that includes the identification of specific goals and objectives for future success and processes to deploy the action plan to align the work of everyone in the organization to achieve the goals and objectives.

Item 2.1 Strategy Development. Questions 7 and eight specifically link to Baldrige Criteria assessment Item 2.1 Strategy Development that focuses on how the organization develops its strategic objectives considering key factors that may influence future success and balancing the needs of students and stakeholders.

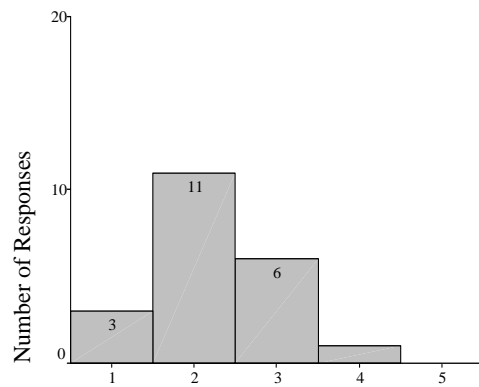
Question 7 asked, “To what extent have district leaders facilitated a planning process that involves all stakeholders?” Figures 4.9.a through 4.9.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 7.

Figure 4.9.a. RQ 1 Question 7: Extent of Implementation of the Baldrige Education Criteria

7. To what extent have district leaders facilitated a planning process that involves all stakeholders?

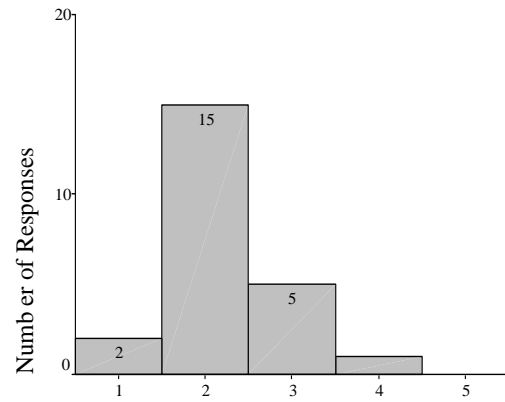
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



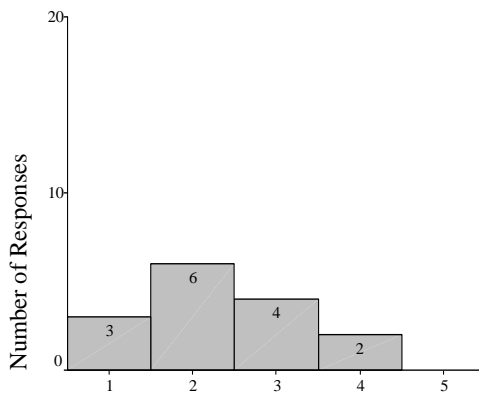
Implementation Question 7 - Central Office

N = 21 Mean = 2.24 SD = .77



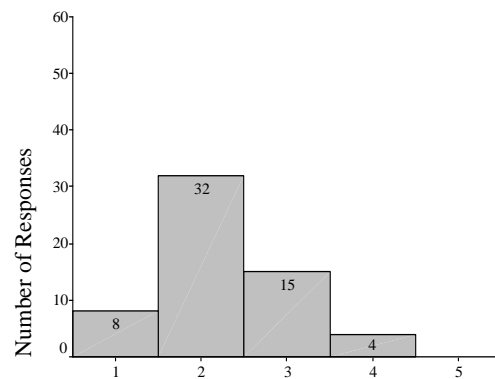
Implementation Question 7 - Principals

N = 23 Mean = 2.22 SD = .67



Implementation Question 7 - Teachers

N = 16 Mean = 2.33 SD = .98 NO = 1

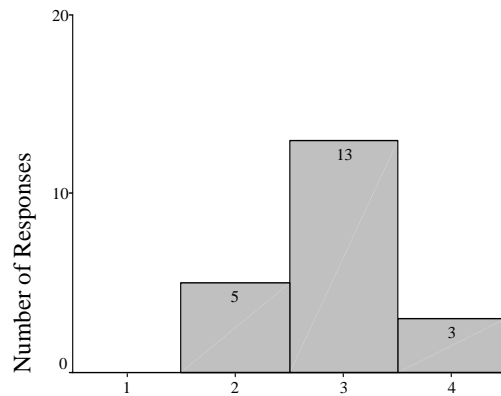


Implementation Question 7 - All Districts

N = 60 Mean = 2.25 SD = .78 NO = 1

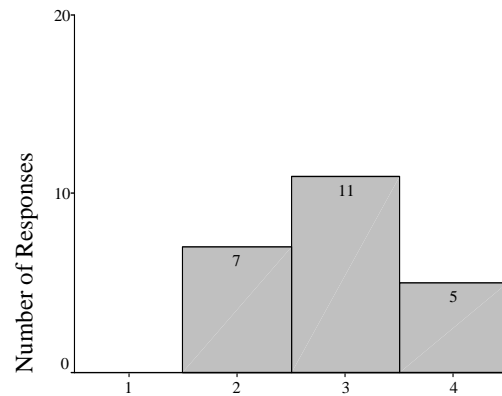
Figure 4.9.b. RQ 1 Question 7: Difficulty of Implementation of the Baldrige Education Criteria**7. To what extent have district leaders facilitated a planning process that involves all stakeholders?*****Difficulty of Implementation Scale***

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



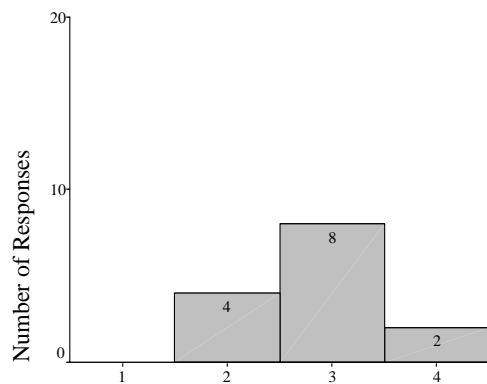
Difficulty Question 7 - Central Office

N = 21 Mean = 2.90 SD = .62



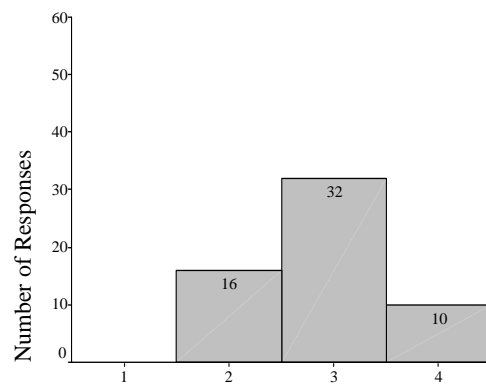
Difficulty Question 7 - Principals

N = 23 Mean = 2.91 SD = .73



Difficulty Question 7 - Teachers

N = 16 Mean = 2.86 SD = .66 NO = 2



Difficulty Question 7 - Aggregate

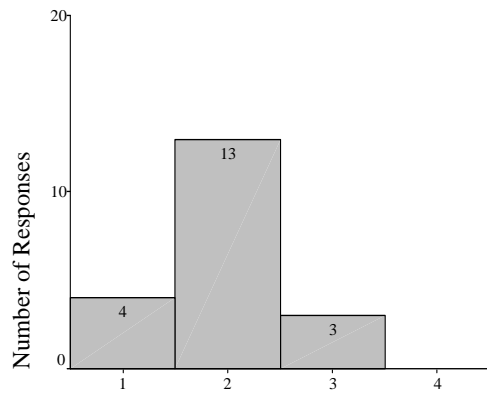
N = 60 Mean = 2.90 SD = .67 NO = 2

Figure 4.9.c. RQ 1 Question 7: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

7. To what extent have district leaders facilitated a planning process that involves all stakeholders?

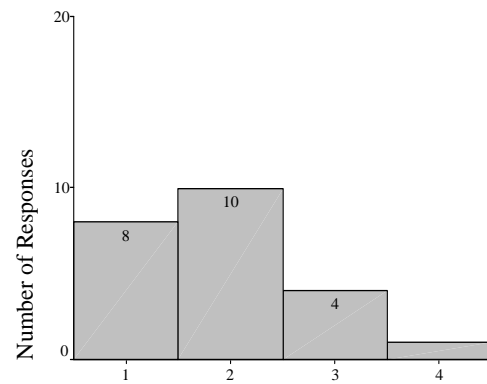
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



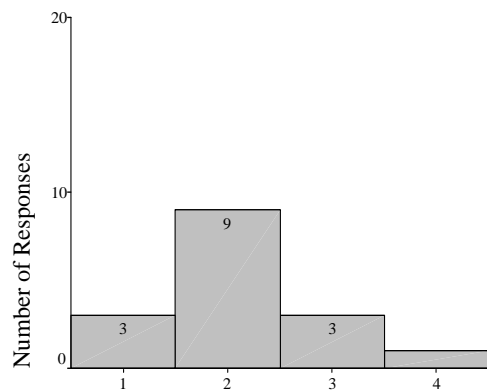
Impact Question 7 - Central Office

N = 21 Mean = 1.95 SD = .60 NO = 1



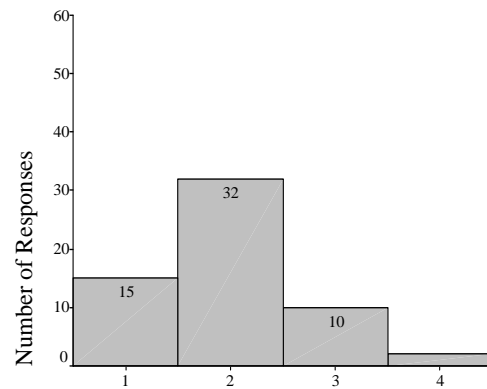
Impact Question 7 - Principals

N = 23 Mean = 1.91 SD = .85



Impact Question 7 - Teachers

N = 16 Mean = 2.13 SD = .81



Impact Question 7 - Aggregate

N = 60 Mean = 1.98 SD = .75 NO = 1

Both central office and principals concurred that the area reflected in question 7 had a “systematic approach, well integrated and implemented.” The teacher panel responses varied across the scale ($SD = .98$) showing no consensus regarding the extent of implementation. Although the aggregate responses varied ($SD = .78$), a majority (53.3%) responded to scale Item “2.” Central office (61.9%) and teachers (50%) agreed that this area was difficult to implement, but two teacher panel members responded that this was “not observed” resulting in a SD of .66. Principals did not reach a consensus; however, 69.5% did respond that this area was “difficult” to “very difficult” to implement. The central office panel showed the greatest consensus with 61.9% agreeing on a moderate impact on collective efficacy with 56.3% of teachers in agreement. Principals did not reach consensus. All panel groups exhibited variance in responses as reflected in the standard deviations ranging from .60 to .85. Overall, panel groups agree that impact ranges from moderate to “strong.”

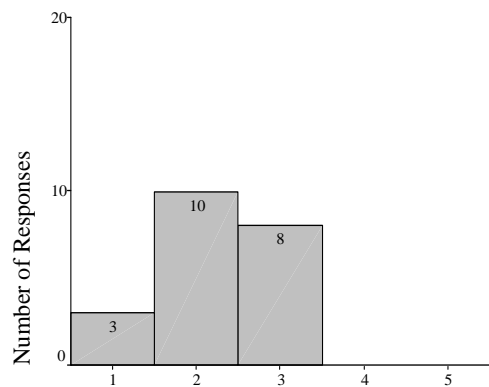
Question 8 asked, “To what extent have district leaders considered student and stakeholder needs, expectations, and opportunities in the planning process?” Figures 4.10.a through 4.10.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 8.

Figure 4.10.a. RQ 1 Question 8: Extent of Implementation of the Baldrige Education Criteria

8. To what extent have district leaders considered student and stakeholder needs, expectations, and opportunities in the planning process?

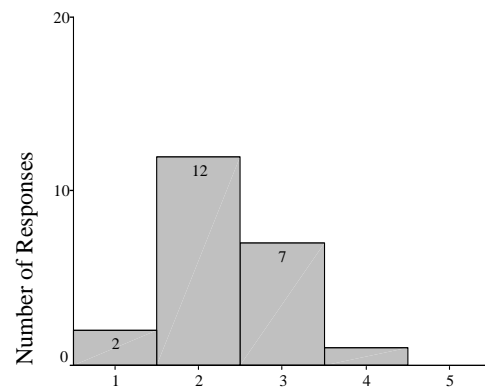
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



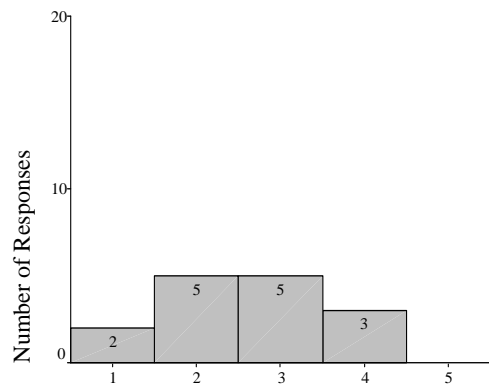
Implementation Question 8 - Central Office

N = 21 Mean = 2.24 SD = .70



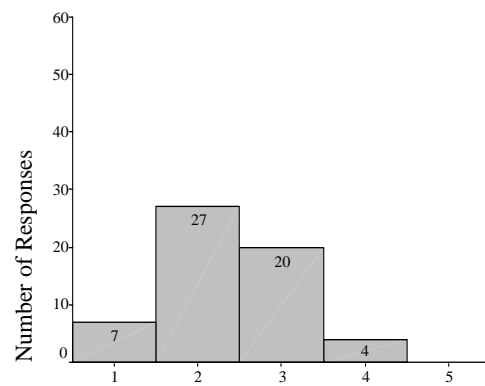
Implementation Question 8 - Principals

N = 23 Mean = 2.32 SD = .72 NO = 1



Implementation Question 8 - Teachers

N = 16 Mean = 2.60 SD = .99 NO = 1



Implementation Question 8 - Aggregate

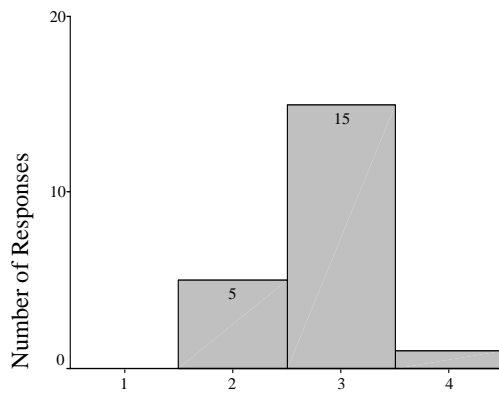
N = 60 Mean = 2.36 SD = .79 NO = 2

Figure 4.10.b. RQ 1 Question 8: Difficulty of Implementation of the Baldrige Education Criteria

8. To what extent have district leaders considered student and stakeholder needs, expectations, and opportunities in the planning process?

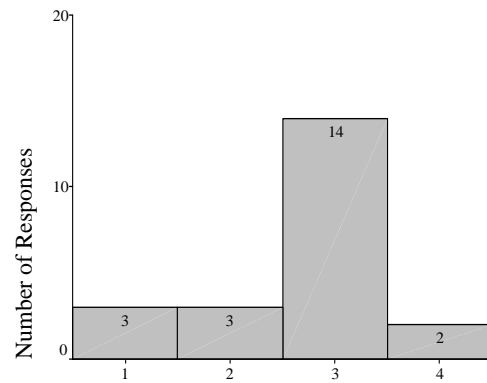
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



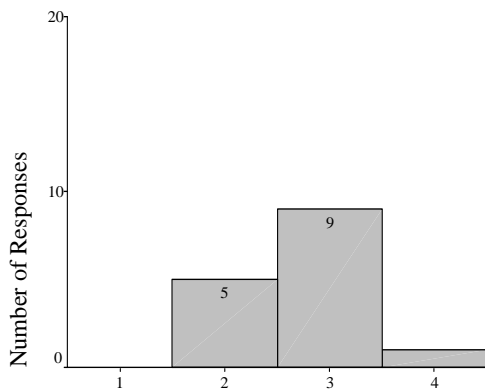
Difficulty Question 8 - Central Office

N = 21 Mean = 2.81 SD = .51



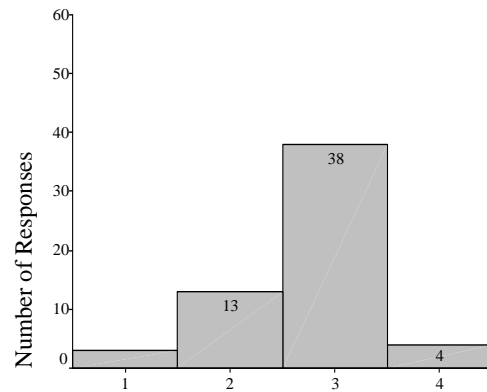
Difficulty Question 8 - Principals

N = 23 Mean = 2.68 SD = .84 NO = 1



Difficulty Question 8 - Teachers

N = 16 Mean = 2.73 SD = .59 NO = 1



Difficulty Question 8 - Aggregate

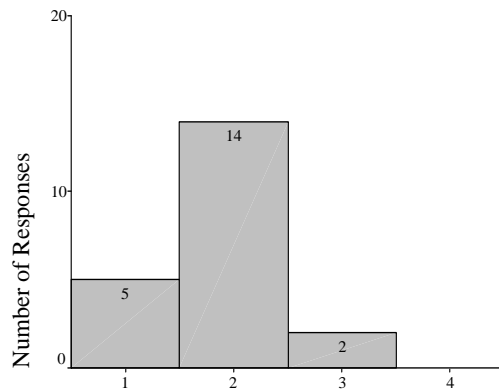
N = 60 Mean = 2.74 SD = .66 NO = 1

Figure 4.10.c. RQ 1 Question 8: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

8. To what extent have district leaders considered student and stakeholder needs, expectations, and opportunities in the planning process?

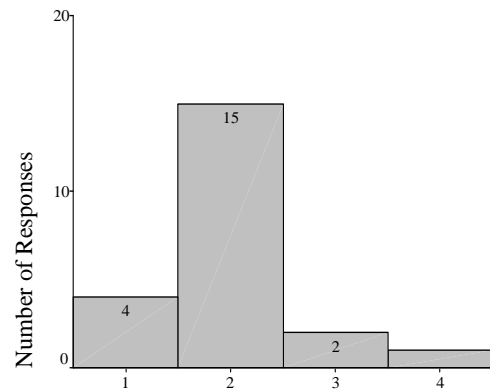
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



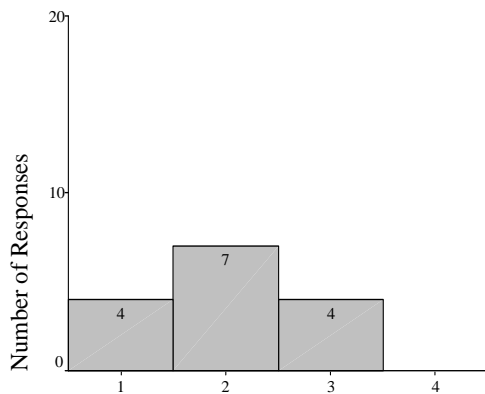
Impact Question 8 - Central Office

N = 21 Mean = 1.86 SD = .57



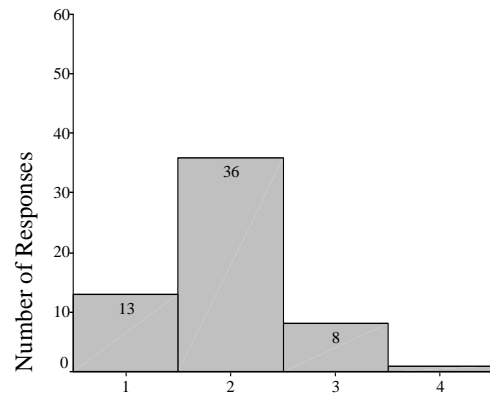
Impact Question 8 - Principals

N = 23 Mean = 2.00 SD = .69 NO = 1



Impact Question 8 - Teachers

N = 16 Mean = 2.00 SD = .76 NO = 1



Impact Question 8 - Aggregate

N = 60 Mean = 1.95 SD = .66 NO = 2

Only the principal panel (52.2%) reached consensus regarding the extent of implementation with a *SD* of .72. Central office had the least variation without a consensus but with 85.7% of responses at scale Items 2 and 3 indicating reasonable to well-integrated implementation. Teacher responses were dispersed across the scale (*SD* = .99). Consensus was reached within and across panel groups that this area was difficult to implement with the least variation in the central office panel. Central office (66.7%) and principals (65.2%) agreed on moderate impact on collective efficacy, and the least variance occurred in the central office panel (*SD* = .57). The teacher panel, with the greatest dispersion (*SD* = .76), did not reach consensus but 68.8% did consider impact moderate to “strong.”

The data related to the extent of implementation of strategy development show the greatest variation of responses within the teacher panel. Consensus within and among panel groups showed implementation was difficult. Question 8 attained consensus on impact within and among panel groups, and question 7 showed consensus

within two of the three panel groups with an overall perception that the implementation of this Item has a moderate to strong impact on collective efficacy.

Item 2.2 Strategy Deployment. Questions 9 and 10 specifically link to Baldrige Criteria assessment Item 2.2 Strategy Deployment focused on how the organization converts strategic objectives into action plans, especially the extent of deployment throughout the organization as evidenced by alignment of processes to goals and objectives. This Item also considers the organization's key performance measures or indicators, and how the organization uses those measures to project future performance.

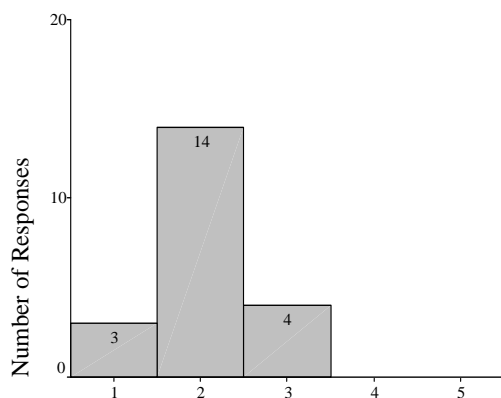
Question 9 asked, "To what extent have district leaders developed and implemented action plans to achieve objectives?" Figures 4.11.a through 4.11.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 9.

Figure 4.11.a. RQ 1 Question 9: Extent of Implementation of the Baldrige Education Criteria

9. To what extent have district leaders developed and implemented action plans to achieve objectives?

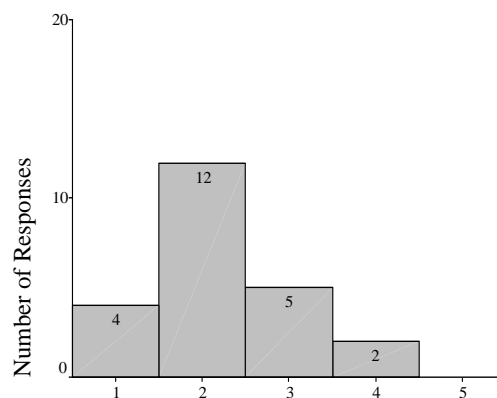
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



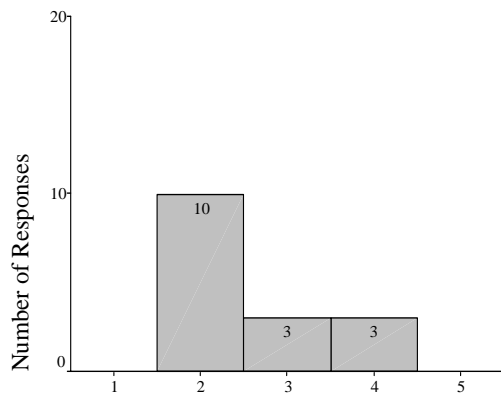
Implementation Question 9 - Central Office

N = 21 Mean = 2.05 SD = .59



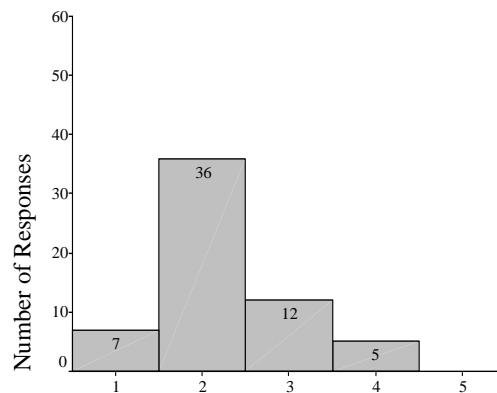
Implementation Question 9 - Principals

N = 23 Mean = 2.22 SD = .85



Implementation Question 9 - Teachers

N = 16 Mean = 2.63 SD = .96



Implementation Question 9 - Aggregate

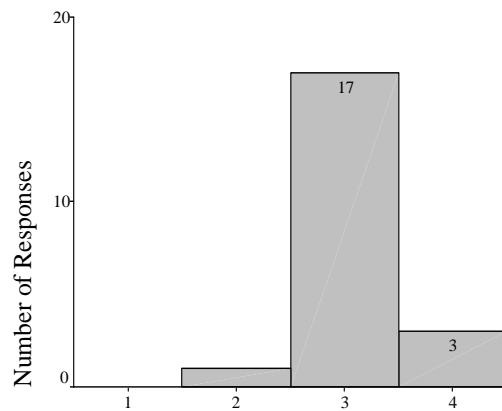
N = 60 Mean = 2.27 SD = .82

Figure 4.11.b. RQ 1 Question 9: Difficulty of Implementation of the Baldrige Education Criteria

9. To what extent have district leaders developed and implemented action plans to achieve objectives?

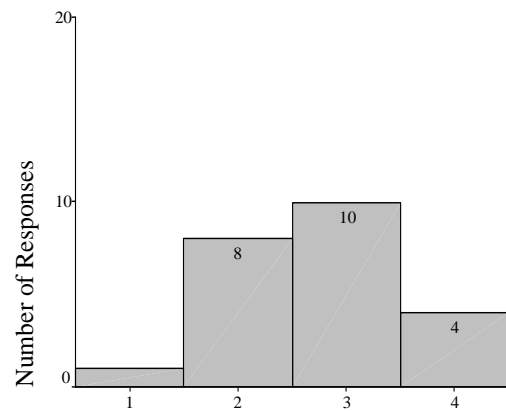
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



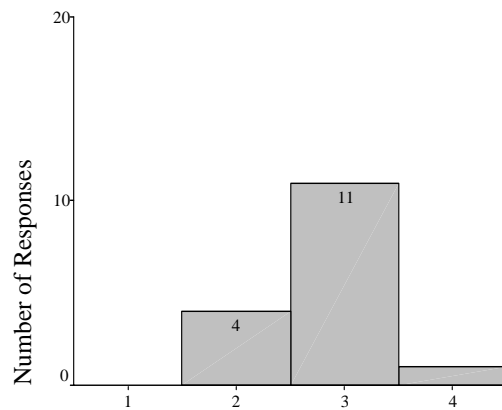
Difficulty Question 9 - Central Office

N = 21 Mean = 3.10 SD = .44



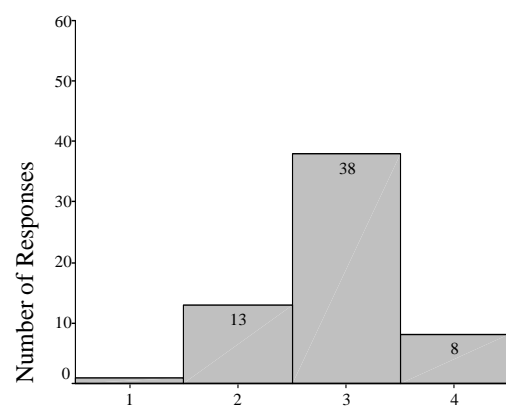
Difficulty Question 9 - Principals

N = 23 Mean = 2.74 SD = .81



Difficulty Question 9 - Teachers

N = 16 Mean = 2.81 SD = .54



Difficulty Question 9 - Aggregate

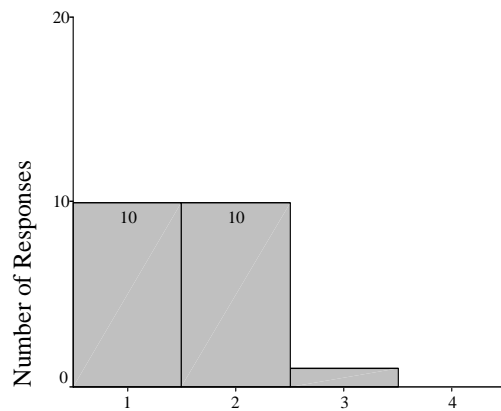
N = 60 Mean = 2.88 SD = .64

Figure 4.11.c. RQ 1 Question 9: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

9. To what extent have district leaders developed and implemented action plans to achieve objectives?

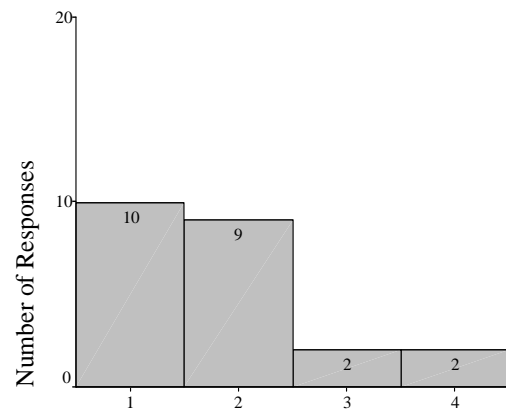
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



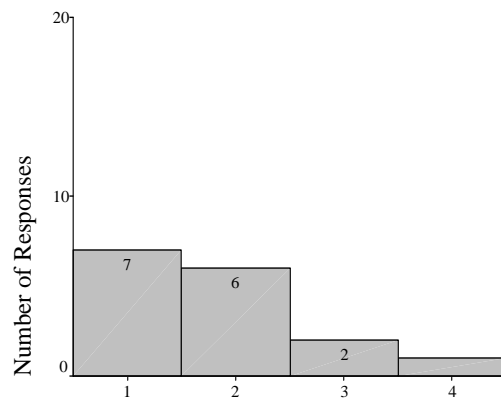
Impact Question 9 - Central Office

N = 21 Mean = 1.57 SD = .60



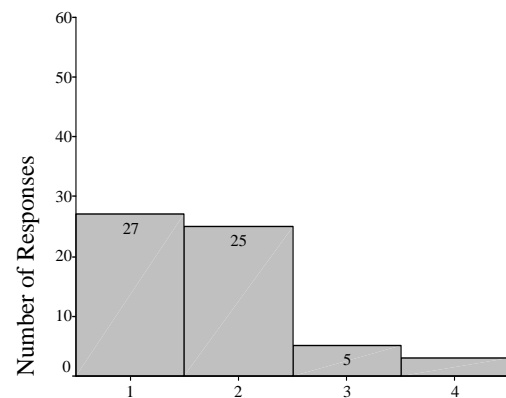
Impact Question 9 - Principals

N = 23 Mean = 1.83 SD = .94



Impact Question 9 - Teachers

N = 16 Mean = 1.81 SD = .91



Impact Question 9 - Aggregate

N = 60 Mean = 1.73 SD = .82

Consensus occurred within and among the panel groups regarding the extent of implementation for question 9. The central office panel showed the least variance ($SD = .59$). Both the central office and teacher panel agreed with little variation in responses ($SD = .44$ and $.54$, respectively) that this area was difficult to implement. Principal responses show the greatest variance ($SD = .81$), but 60.9% identified implementation as difficult to “very difficult.” The aggregate data reveals consensus with a SD of $.64$. While a clear consensus failed to emerge within or among panel groups on the impact on collective efficacy, a strong majority in each group (95.2% central office, 82.6% principals, and 81.3% teachers) as well as the aggregate data (86.7%) show perceptions of impact as strong to “moderate.” The least variance occurred in the central office panel ($SD = .60$).

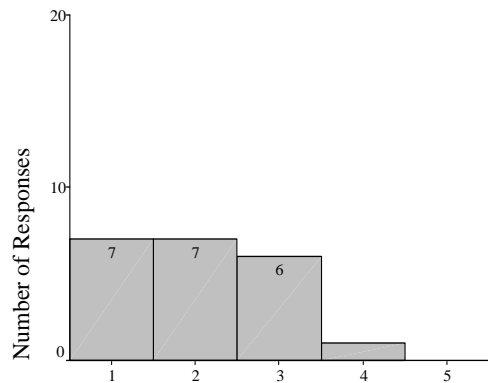
Question 10 asked, “To what extent have district leaders identified performance measures for tracking the progress of action plans?” Figures 4.12.a through 4.12.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 10.

Figure 4.12.a. RQ 1 Question 10: Extent of Implementation of the Baldrige Education Criteria

10. To what extent have district leaders identified performance measures for tracking the progress of action plans?

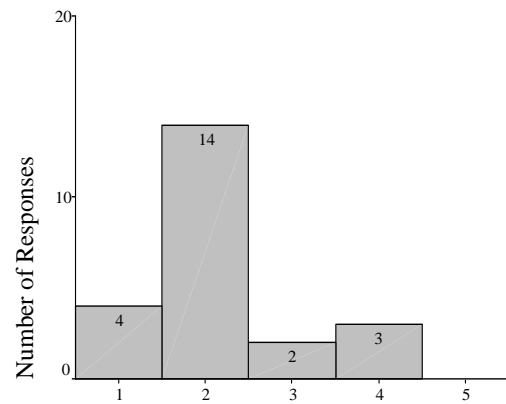
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



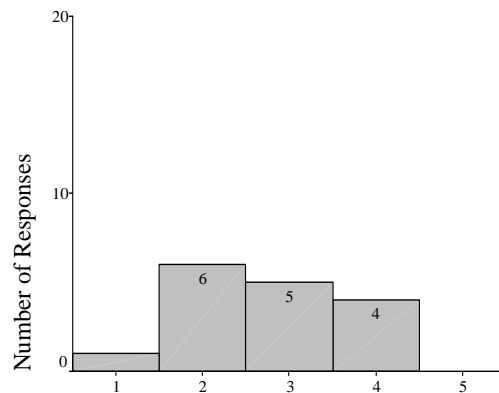
Implementation Question 10-Central Office

N = 21 Mean = 2.05 SD = .92



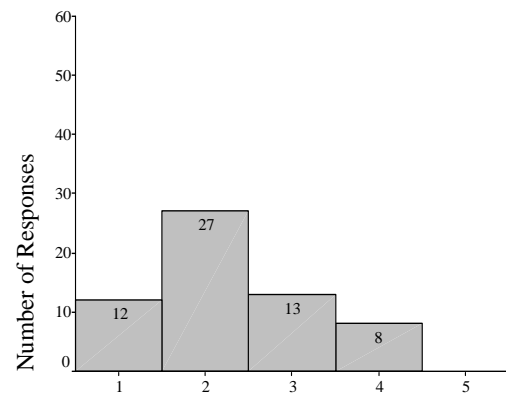
Implementation Question 10 - Principals

N = 23 Mean = 2.17 SD = .89



Implementation Question 10 - Teachers

N = 16 Mean = 2.81 SD = 1.05



Implementation Question 10 - Aggregate

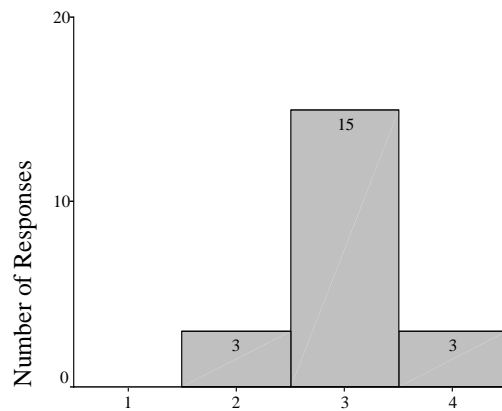
N = 60 Mean = 2.30 SD = .98

Figure 4.12.b. RQ 1 Question 10: Difficulty of Implementation of the Baldrige Education Criteria

10. To what extent have district leaders identified performance measures for tracking the progress of action plans?

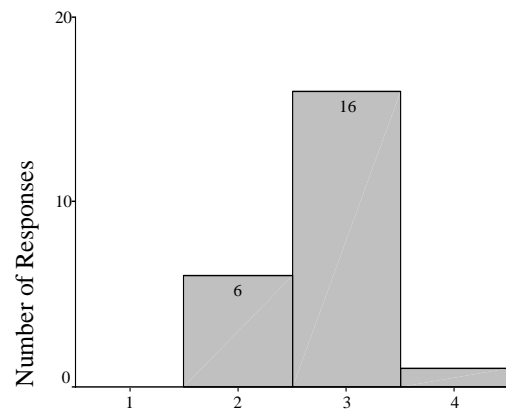
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



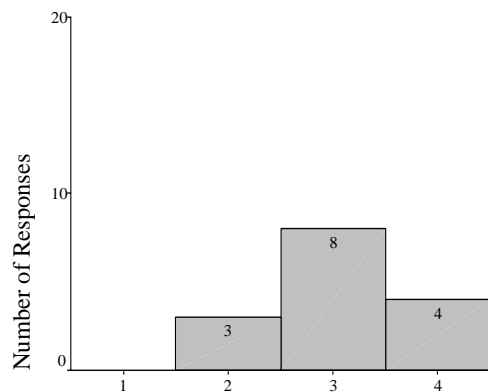
Difficulty Question 10 - Central Office

N = 21 Mean = 3.00 SD = .55



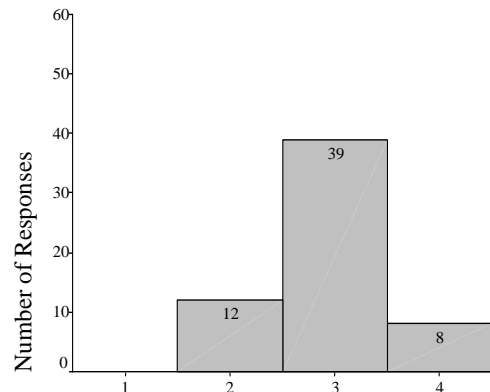
Difficulty Question 10 - Principals

N = 23 Mean = 2.78 SD = .52



Difficulty Question 10 - Teachers

N = 16 Mean = 3.07 SD = .70 NO = 1



Difficulty Question 10 - Aggregate

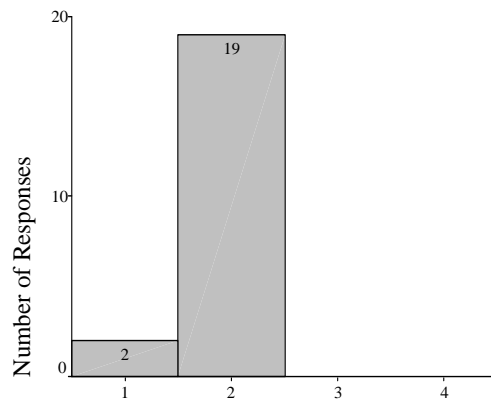
N = 60 Mean = 2.93 SD = .58 NO = 1

Figure 4.12.c. RQ 1 Question 10: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

10. To what extent have district leaders identified performance measures for tracking the progress of action plans?

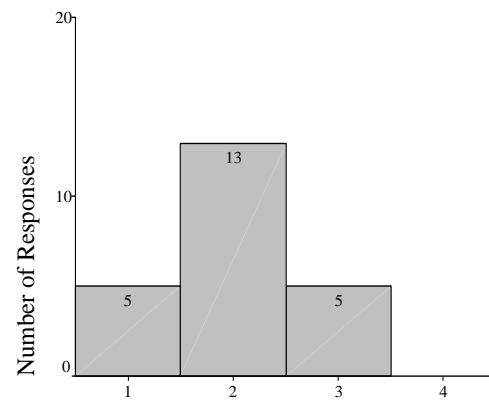
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



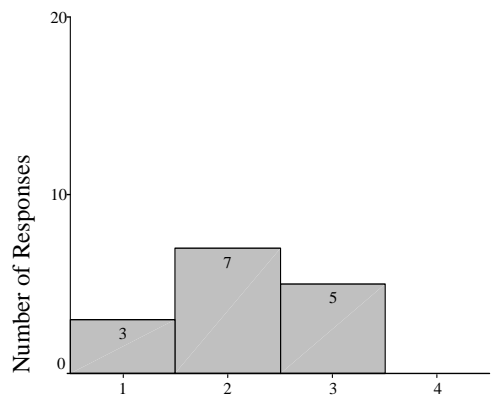
Impact Question 10 - Central Office

N = 21 Mean = 1.90 SD = .30



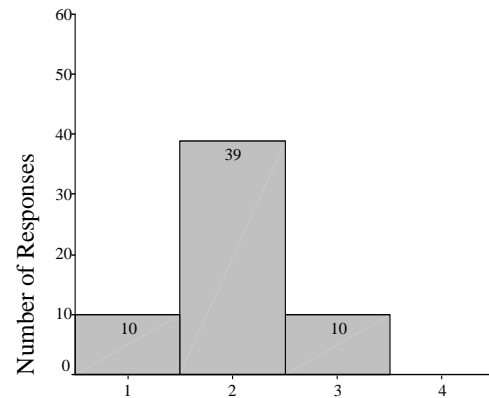
Impact Question 10 - Principals

N = 23 Mean = 2.00 SD = .67



Impact Question 10 - Teachers

N = 16 Mean = 2.13 SD = .74 NO = 1



Impact Question 10 - Aggregate

N = 60 Mean = 2.00 SD = .59 NO = 1

The data from question 10 reflect consensus within the principal panel with 60.9% agreeing that this area has a “systematic approach, well integrated and implemented.” Central office ($SD = .92$) and teacher ($SD = 1.05$) panel responses varied across the scale with more central office responses (66.6%) at higher levels of implementation. All panel groups reached consensus that implementation was “difficult.” Central office ($SD = .55$) and principal ($SD = .52$) data shows the least variance in responses. The central office panel reached strong consensus (90.5%) of moderate impact on collective efficacy with very little variance ($SD = .30$). Principals (56.5%) reached the same consensus with some variance ($SD = .67$). Teacher responses showed the greatest variance ($SD = .74$) ranging from strong to limited impact. The aggregate data reveal that 65% perceive moderate impact on collective teacher efficacy with a standard deviation of .59.

The data from the questions for this Item demonstrated a strong consensus within and among the panel groups that district leaders develop and implement action plans, but it indicated little to no agreement concerning the implementation of performance measures to track progress. Both central office and teachers concurred that deploying action plans was “difficult,” while principal responses ranged from “very easy” to “very difficult.” However, all panel groups agreed on the difficulty of identifying performance measures but did not reach consensus either within all groups or across the groups. The implementation of performance measures was perceived to have a strong to moderate impact collective efficacy. The least variance in response continued to be among the central office panel, and the greatest variance for this Item was in the teacher panel.

Student, Stakeholder, and Market Focus

Category 3, Student, Stakeholder, and Market Focus, of the Baldrige Education Criteria examines how the organization determines requirements, expectations, and preferences of students, stakeholders, and markets focusing on the methods for tracking and building relationships with students and stakeholders. This Category also considers how the organization determines the key factors that attract both students and partners leading to satisfaction, persistence, and educational programs and services designed to meet the needs of all student segments.

Item 3.1 Knowledge of Student, Stakeholder, and Market Needs and Expectations.

Question 11 links to Baldrige Criteria assessment Item 3.1 Knowledge of Student, Stakeholder, and Market Needs and Expectations, which looks at the organization's key processes for determining knowledge about the requirements, expectations, and preferences of both current and future student, stakeholder, and markets. The information gained from these processes serves to create a climate open to learning and development of all students.

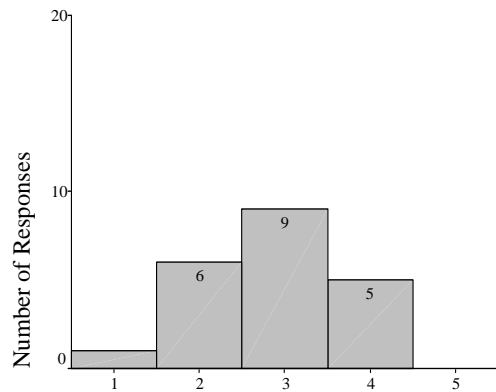
Question 11 asked, "To what extent has the district developed strategies to determine key student needs, expectations, and stakeholder satisfaction?" Figures 4.13.a through 4.13.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 11.

Figure 4.13.a. RQ 1 Question 11: Extent of Implementation of the Baldrige Education Criteria

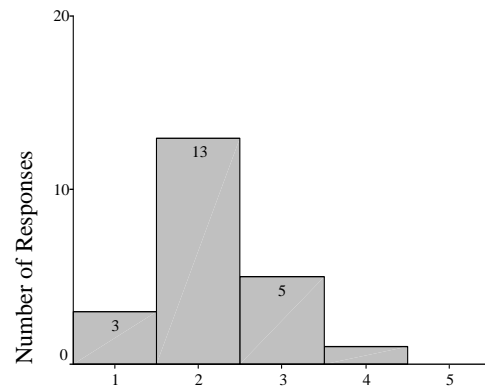
11. To what extent has the district developed strategies to determine key student needs, expectations, and stakeholder satisfaction?

Extent of Implementation Scale

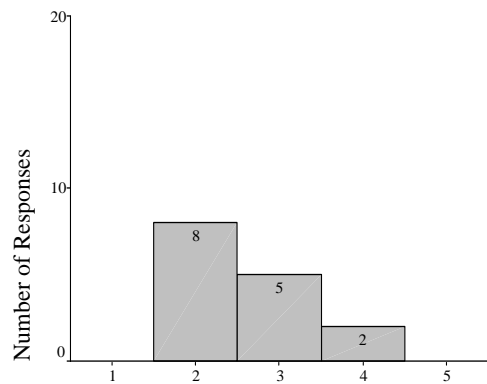
1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



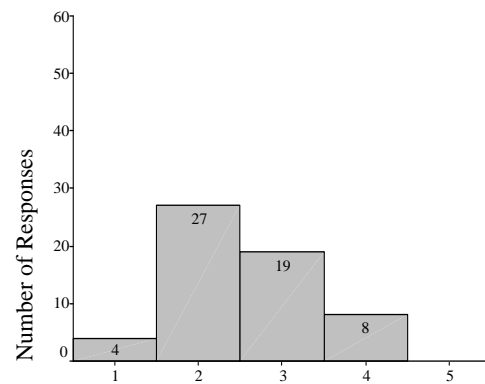
Implementation Question 11 - Central Office
N = 21 Mean = 2.90 SD = .94



Implementation Question 11 - Principal
N = 23 Mean = 2.18 SD = .73 NO = 1



Implementation Question 11 - Teachers
N = 2.81 Mean = 2.60 SD = .74 NO = 1



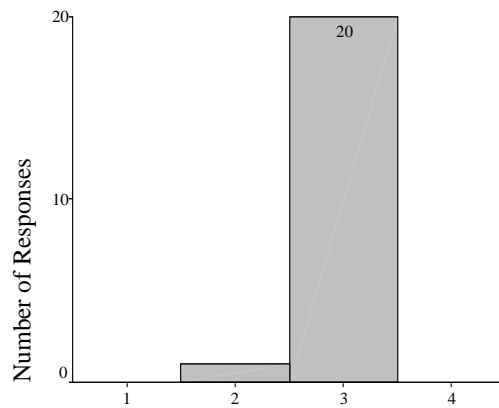
Implementation Question 11 - Aggregate
N = 60 Mean = 2.55 SD = .86 NO = 2

Figure 4.13.b. RQ 1 Question 11: Difficulty of Implementation of the Baldrige Education Criteria

11. To what extent has the district developed strategies to determine key student needs, expectations, and stakeholder satisfaction?

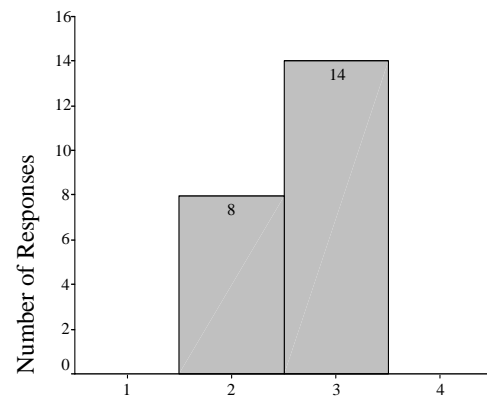
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



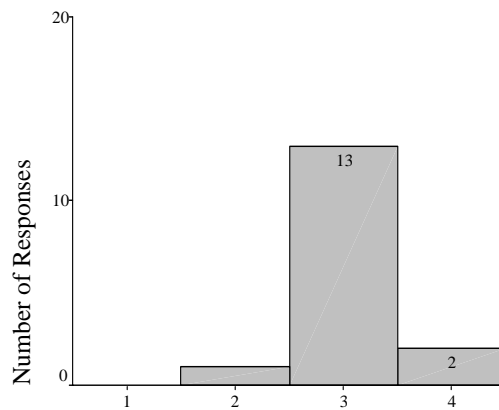
Difficulty Question 11 - Central Office

N = 21 Mean = 2.95 SD = .22



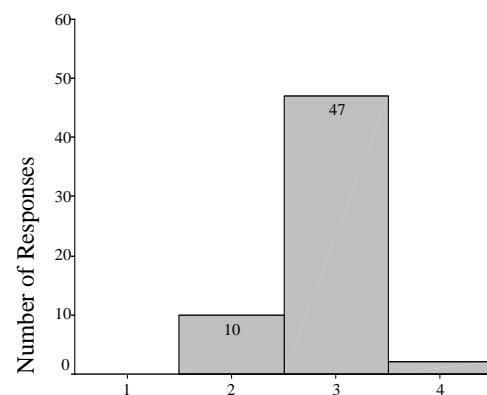
Difficulty Question 11 - Principals

N = 23 Mean = 2.64 SD = .49 NO = 1



Difficulty Question 11 - Teachers

N = 16 Mean = 3.06 SD = .44



Difficulty Question 11 - Aggregate

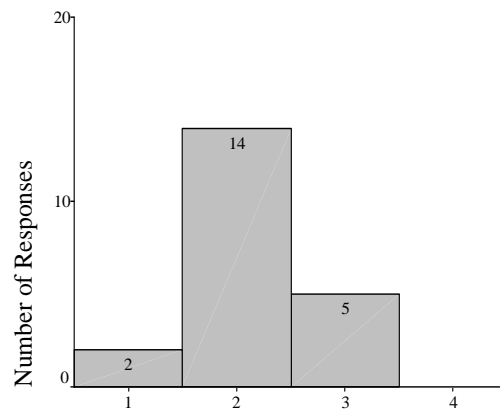
N = 60 Mean = 2.86 SD = .43 NO = 1

Figure 4.13.c. RQ 1 Question 11: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

11. To what extent has the district developed strategies to determine key student needs, expectations, and stakeholder satisfaction?

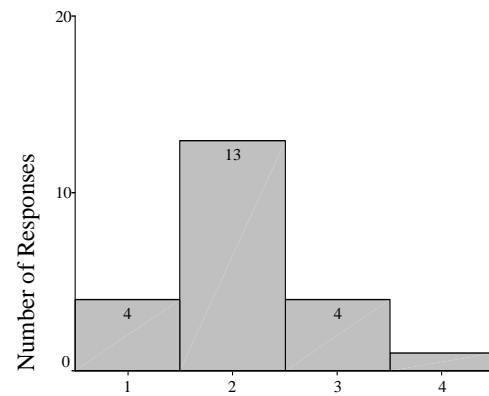
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



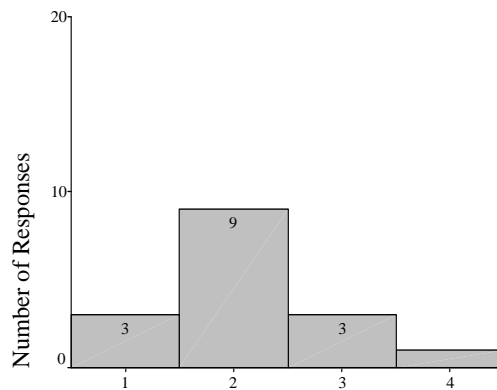
Impact Question 11- Central Office

N = 21 Mean = 2.14 SD = .57



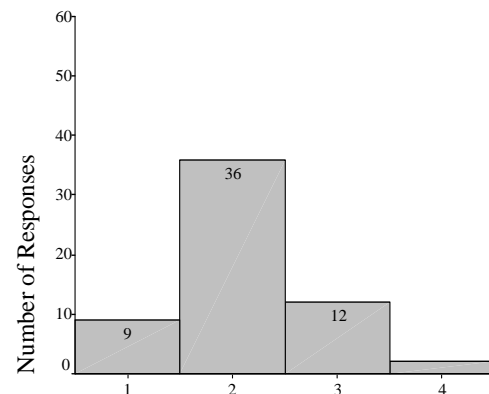
Impact Question 11 - Principals

N = 23 Mean = 2.09 SD = .75 NO = 1



Impact Question 11 - Teachers

N = 16 Mean = 2.13 SD = .81



Impact Question 11 - Aggregate

N = 60 Mean = 2.12 SD = .70 NO = 1

The central office panel did not concur on the extent of implementation with responses from a scale of 1 to 4 ($SD = .94$). The principal (56.5%) and teacher (50%) panels did agree on implementation but responses were dispersed across the scales with standard deviations of .73 and .74. The aggregate data also reflected no agreement. Strong consensus that this area was difficult to implement emerged within each group and across the panels with the highest agreement and least variance within the central office panel (95.2% and $SD = .22$) and the teacher panel (81.3% and $SD = .44$). The aggregate data also reflected high agreement (78.3%) and less variance ($SD = .43$). All panel groups concurred on the moderate impact on collective efficacy with the least variation within central office ($SD = .57$) and the greatest within the principal ($SD = .75$) and teacher ($SD = .81$) panels.

The data reflected a wide response to the extent of implementation, but the most responses within and across the groups considered implementation systematic and well integrated. There was a strong consensus regarding the difficulty of implementation and the level of impact that implementation had on collective efficacy. The central office panel demonstrated the least variance in responses while principal and teacher responses exhibited greater dispersion.

Item 3.2 Student and Stakeholder Relationships and Satisfaction. Questions 12 and 13 specifically link to Baldrige Criteria assessment Item 3.2 Student and Stakeholder Relationships and Satisfaction, which looks at how the organization builds relationships to retain students and enhance student learning. This Item also examines the organization's ability to deliver services that satisfy students and stakeholders as well developing new opportunities to meet those needs. In addition, consideration is given to how the organization determines satisfaction and how this information is used for continuous improvement of services.

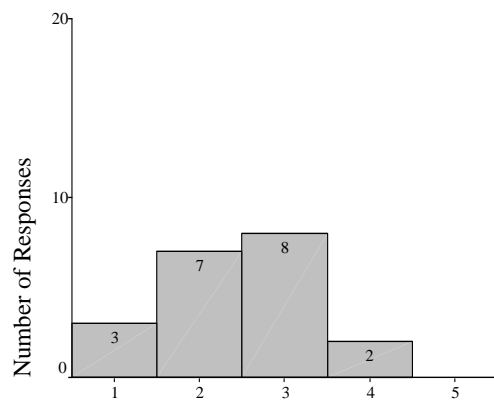
Question 12 asked, "To what extent has the district built relationships to enhance student performance and retain students?" Figures 4.14.a through 4.14.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 12.

Figure 4.14.a. RQ 1 Question 12: Extent of Implementation of the Baldrige Education Criteria

12. To what extent has the district built relationships to enhance student performance and retain students?

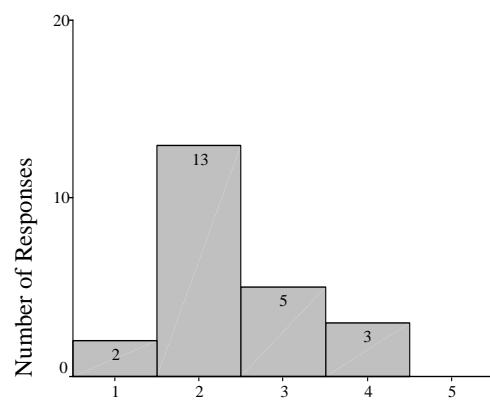
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



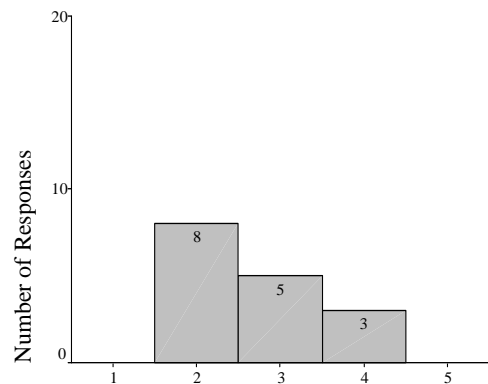
Implementation Question 12 - Central Office

N = 21 Mean = 2.45 SD = .89 NO = 1



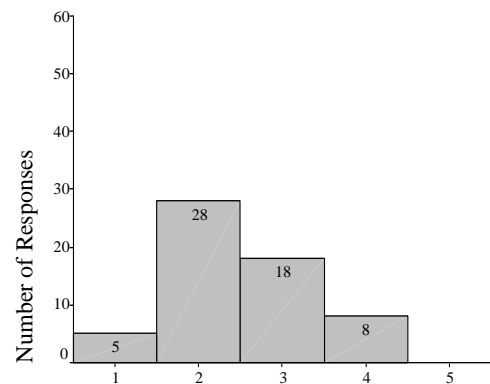
Implementation Question 12 - Principals

N = 23 Mean = 2.43 SD = .95



Implementation Question 12 - Teachers

N = 16 Mean = 2.75 SD = .93



Implementation Question 12 - Aggregate

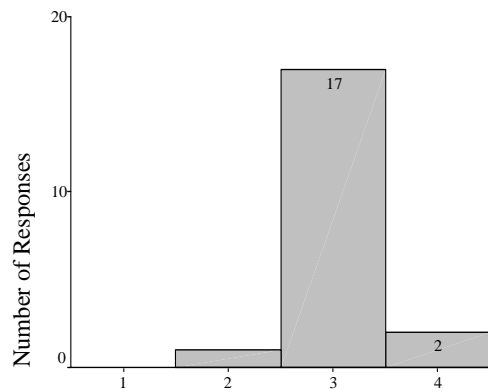
N = 60 Mean = 2.53 SD = .92 NO = 1

Figure 4.14.b. RQ 1 Question 12: Difficulty of Implementation of the Baldrige Education Criteria

12. To what extent has the district built relationships to enhance student performance and retain students?

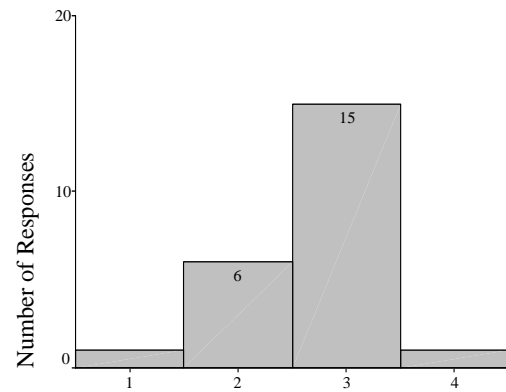
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



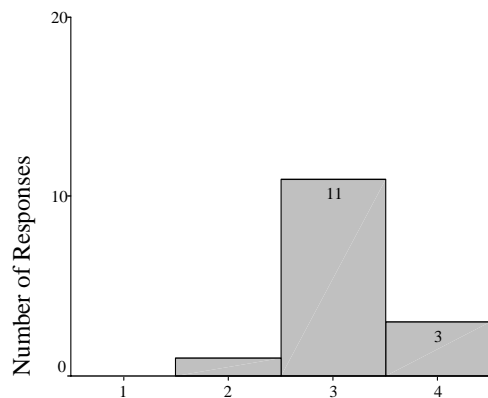
Difficulty Question 12 - Central Office

N = 21 Mean = 3.05 SD = .39 NO = 1



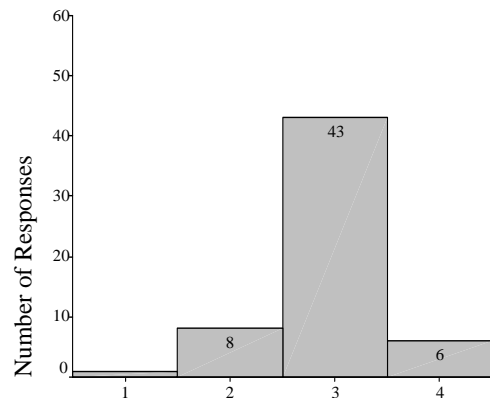
Difficulty Question 12 - Principals

N = 23 Mean = 2.70 SD = .63



Difficulty Question 12 - Teachers

N = 16 Mean = 3.13 SD = .52 NO = 1



Difficulty Question 12 - Aggregate

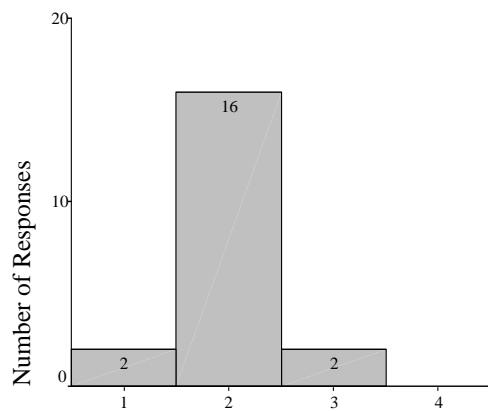
N = 60 Mean = 2.93 SD = .56 NO = 2

Figure 4.14.c—RQ 1 Question 12: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

12. To what extent has the district built relationships to enhance student performance and retain students?

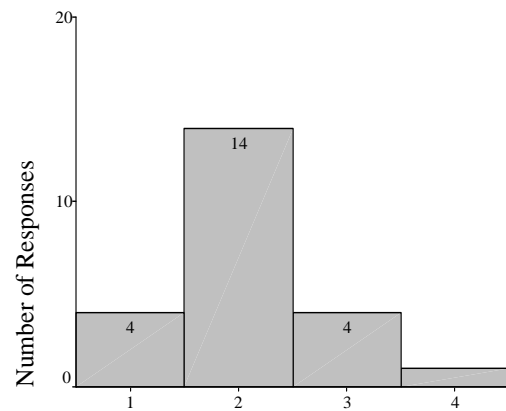
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



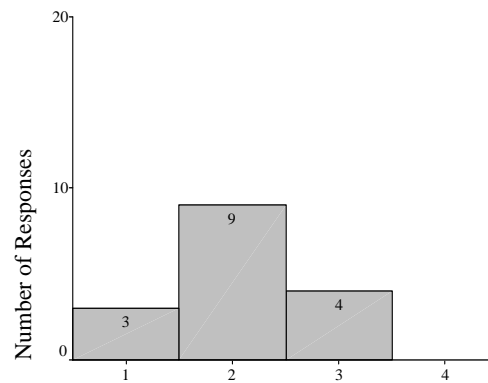
Impact Question 12 - Central Office

N = 21 Mean = 2.00 SD = .46 NO = 1



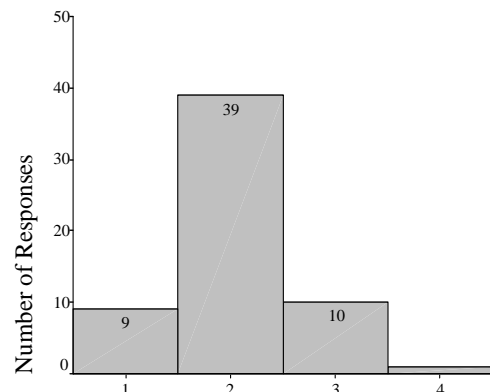
Impact Question 12 - Principals

N = 23 Mean = 2.09 SD = .73



Impact Question 12 - Central Office

N = 16 Mean = 2.06 SD = .68



Impact Question 12 - Aggregate

N = 60 Mean = 2.05 SD = .63 NO = 1

For question 12, the data from the central office panel indicate variance ($SD = .89$) in responses and no consensus on the extent of implementation. The principal (56.5%) and teacher (50%) panels agreed that implementation was systematic and well integrated but responses were dispersed across the scale. Consensus both within panel groups and across groups showed implementation as difficult to achieve. Some variance occurred within all groups, but the central office panel had the least variance in responses ($SD = .39$). All panel groups and the aggregate reflected agreement on the moderate impact of this area on collective efficacy.

Question 13 asked, “To what extent has the district collected information from students and stakeholders to improve the district and its services?”

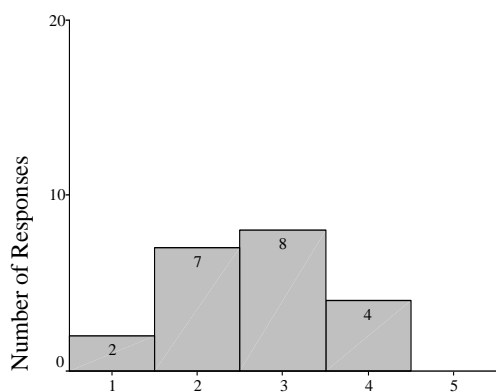
Figures 4.15.a through 4.15.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 13.

Figure 4.15.a. RQ 1 Question 13: Extent of Implementation of the Baldrige Education Criteria

13. To what extent has the district collected information from students and stakeholders to improve the district and its services?

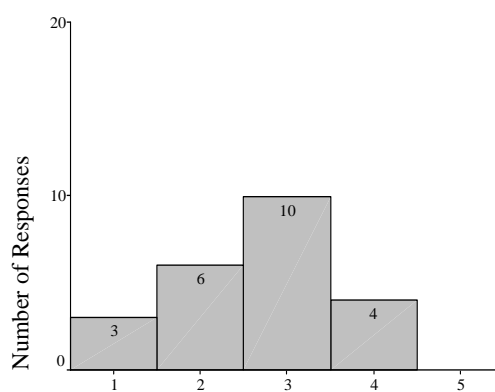
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



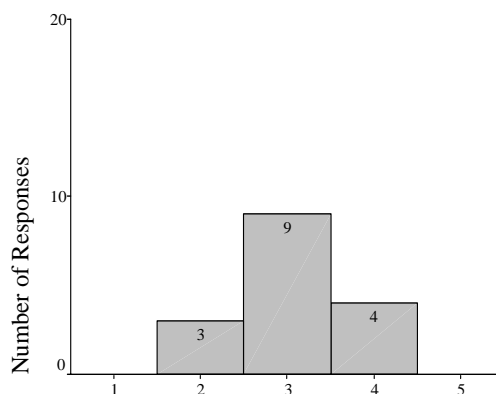
Implementation Question 13 - Central Office

N = 21 Mean = 2.67 SD = .91



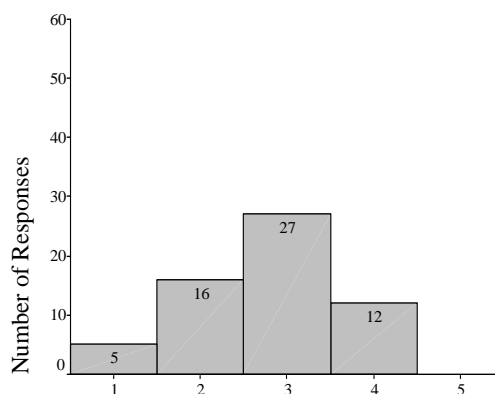
Implementation Question 13 - Principals

N = 23 Mean = 2.65 SD = .93



Implementation Question 13 - Teachers

N = 16 Mean = 3.06 SD = .68



Implementation Question 13 - Aggregate

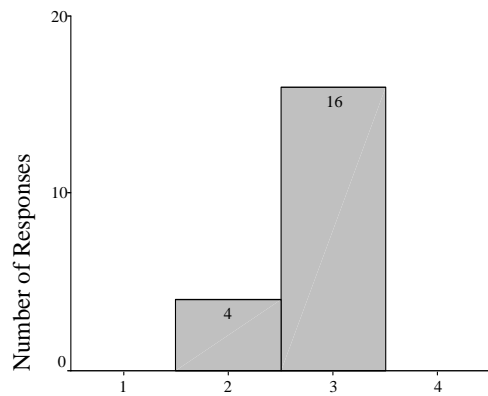
N = 60 Mean = 2.77 SD = .87

Figure 4.15.b. RQ 1 Question 13: Difficulty of Implementation of the Baldrige Education Criteria

13. To what extent has the district collected information from students and stakeholders to improve the district and its services?

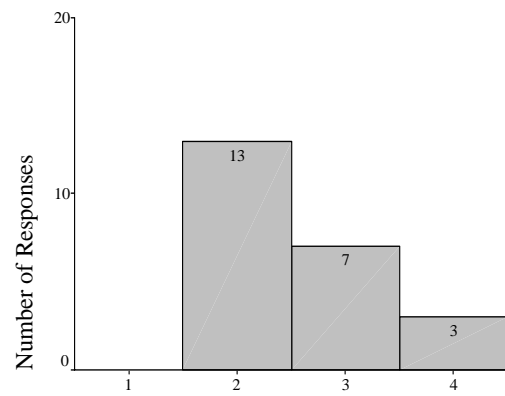
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



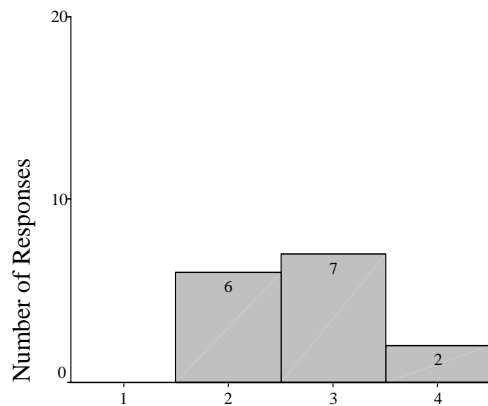
Difficulty Question 13 - Central Office

N = 21 Mean = 2.80 SD = .41 NO = 1



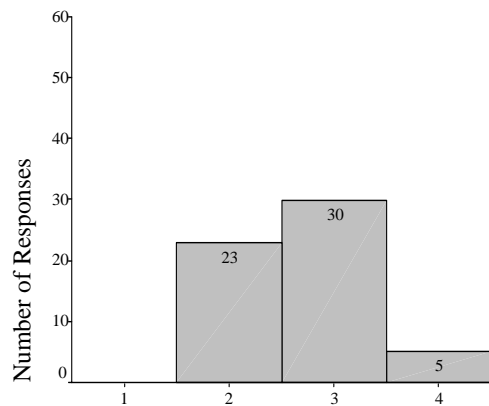
Difficulty Question 13 - Principals

N = 23 Mean = 2.57 SD = .73



Difficulty Question 13 - Teachers

N = 16 Mean = 2.73 SD = .70 NO = 1



Difficulty Question 13 - Aggregate

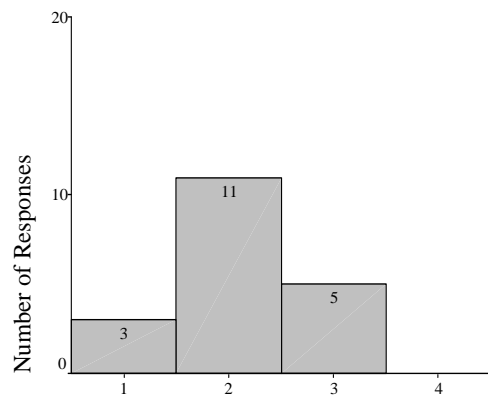
N = 60 Mean = 2.69 SD = .63 NO = 2

Figure 4.15.c. RQ 1 Question 13: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

13. To what extent has the district collected information from students and stakeholders to improve the district and its services?

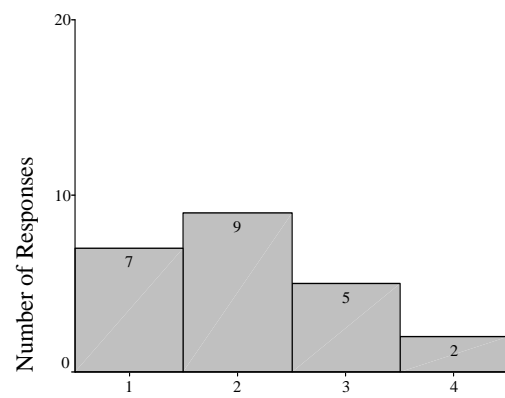
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



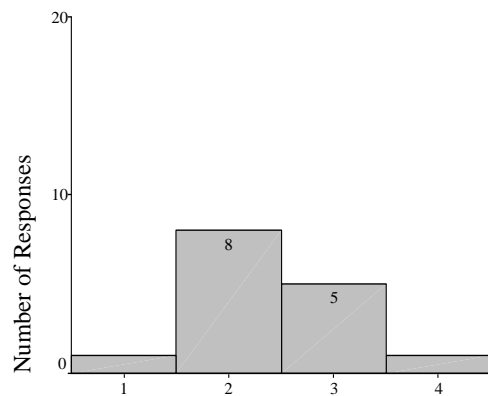
Impact Question 13 - Central Office

N = 21 Mean = 2.11 SD = .66 NO = 2



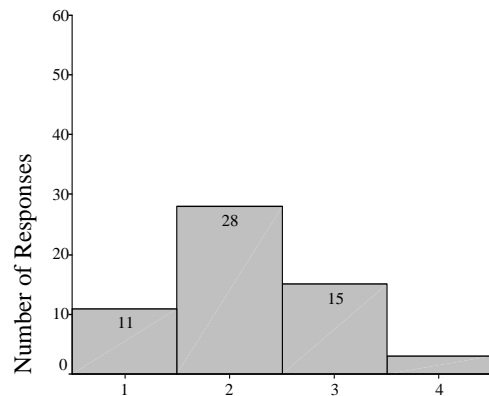
Impact Question 13 - Principals

N = 23 Mean = 2.09 SD = .95



Impact Question 13 - Teachers

N = 16 Mean = 2.40 SD = .74 NO = 1



Impact Question 13 - Aggregate

N = 60 Mean = 2.18 SD = .80 NO = 3

Only the teacher panel (56.3%) agreed on the extent of implementation for question 13, which had a “systematic approach, reasonably implemented.” The central office and principal panels, while not reaching consensus, did have the largest number of responses in agreement with the teacher panel. Regarding the difficulty of implementation, central office (76.2%) concurred that it was “difficult,” principals (56.5%) concurred that it was “easy,” and teachers were almost evenly divided between easy and difficult to implement. The central office (52.4% and $SD = .66$) and teacher (50% and $SD = .74$) panels concurred on moderate impact on collective efficacy with variance in responses for both groups. No agreement emerged from principals, but 69.5% perceived impact at moderate to “strong.”

The perception of the extent of implementation varied within and across each panel group for both questions. Although consensus was reached on the difficulty of implementing processes to build relationships, no clear indication emerged regarding the level of difficulty in collecting information to improve services. Overall, this Item is perceived to have a moderate impact on collective teacher efficacy.

Information and Analysis

Questions 14 through 17 seek data on Category 4, Information and Analysis, of the Baldrige Education Criteria. The purpose of this Category is to examine how the organization processes information for decision making and the kinds of performance data collected. Central to the alignment of the organization, information management and performance measurement systems drive improvement and competitiveness.

Equally important in this Category is how information is dispersed and the accessibility of information to faculty and staff, students and stakeholders, and community partners.

Item 4.1 Measurement and Analysis of Organizational Performance. Questions 14 through 16 link to Baldrige Criteria assessment Item 4.1 Measurement and Analysis of Organizational Performance, which focuses on the mechanical processes for data collection as well as the analytical processes used to interpret the data that is then deployed at all levels of the organization to improve operational and student performance.

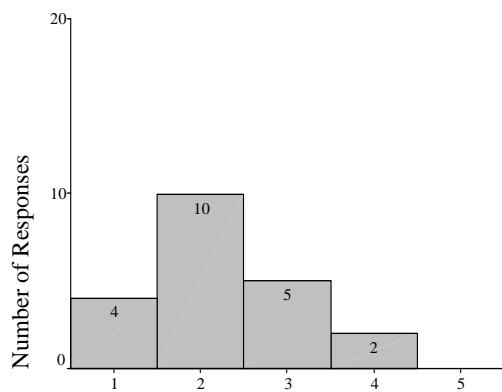
Question 14 asked, “To what extent has the district collected information from students and stakeholders to improve the district and its services?” Figures 4.16.a through 4.16.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 14.

Figure 4.16.a. RQ 1 Question 14: Extent of Implementation of the Baldrige Education Criteria

14. To what extent has the district collected information from students and stakeholders to improve the district and its services?

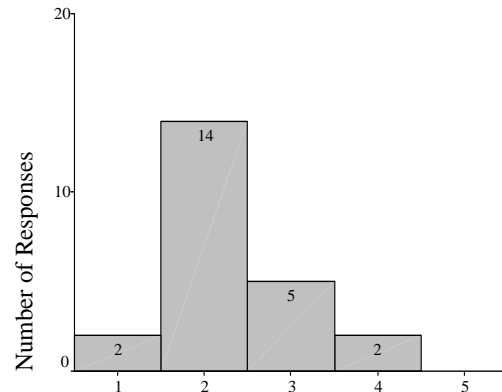
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



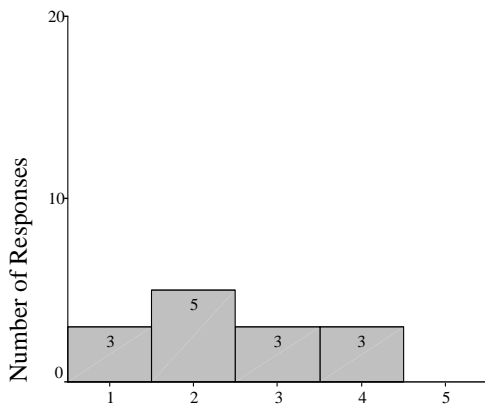
Implementation Question 14 - Central Office

N = 21 Mean = 2.29 SD = 1.01



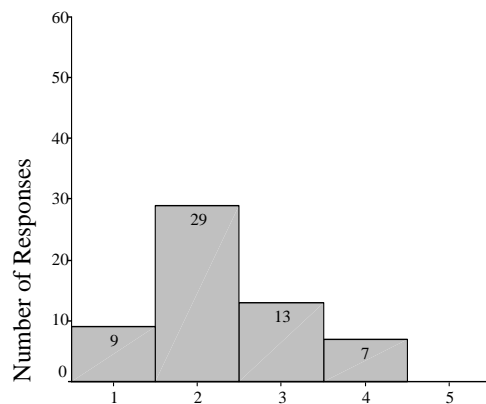
Implementation Question 14 - Principals

N = 23 Mean = 2.35 SD = .88



Implementation Question 14 - Teachers

N = 16 Mean = 2.43 SD = 1.09 NO = 2



Implementation Question 14 - Aggregate

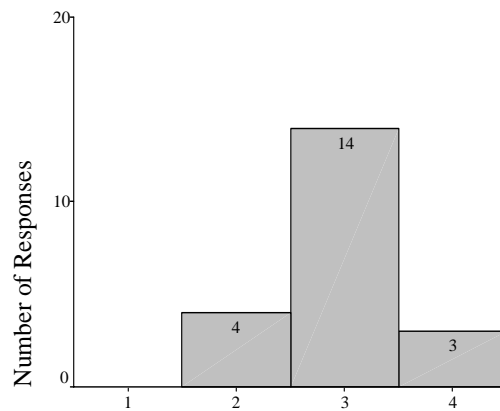
N = 60 Mean = 2.34 SD = .97 NO = 1

Figure 4.16.b. RQ 1 Question 14: Difficulty of Implementation of the Baldrige Education Criteria

14. To what extent has the district collected information from students and stakeholders to improve the district and its services?

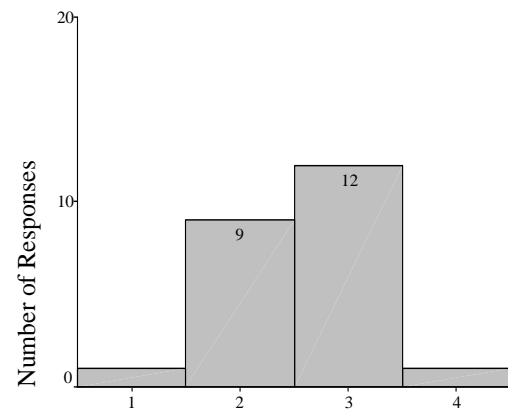
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



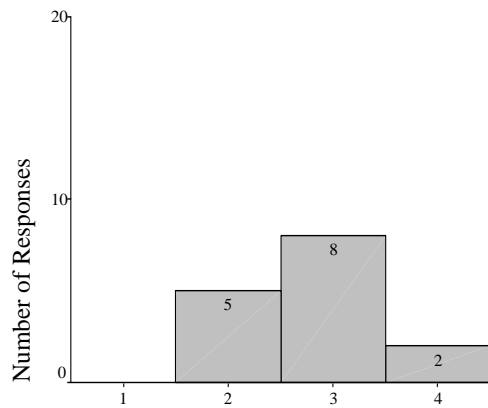
Difficulty Question 14 - Central Office

N = 21 Mean = 2.95 SD = .59



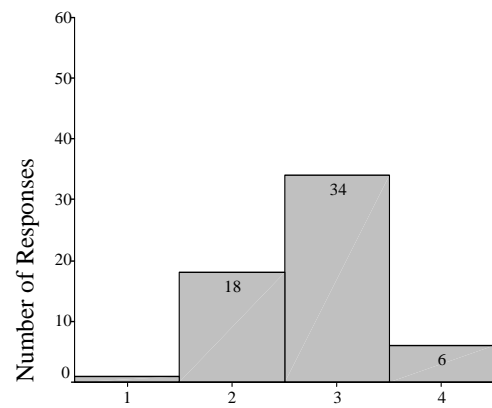
Difficulty Question 14 - Principals

N = 23 Mean = 2.57 SD = .66



Difficulty Question 14 - Teachers

N = 16 Mean = 2.80 SD = .68 NO = 1



Difficulty Question 14 - Aggregate

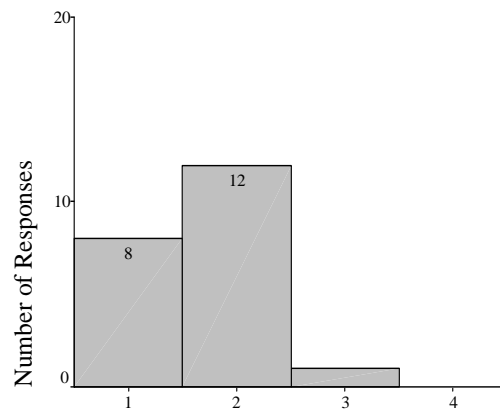
N = 60 Mean = 2.76 SD = .65 NO = 1

Figure 4.16.c. RQ 1 Question 14: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

14. To what extent has the district collected information from students and stakeholders to improve the district and its services?

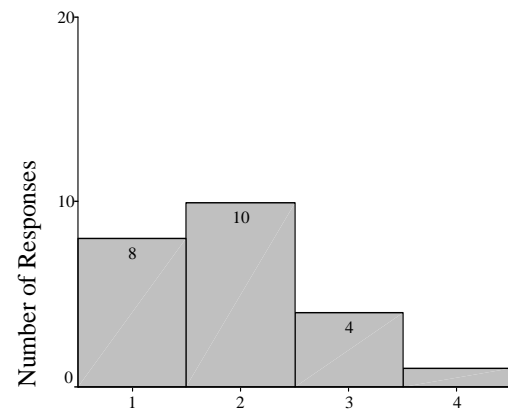
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



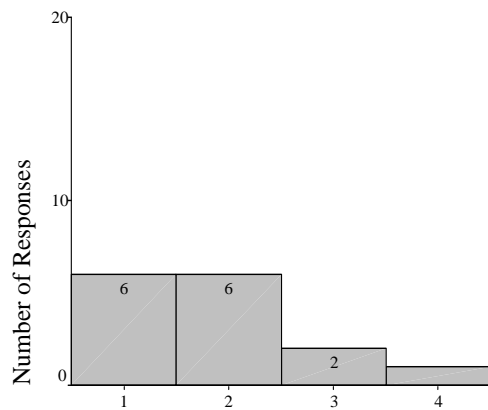
Impact Question 14 - Central Office

N = 21 Mean = 1.67 SD = .58



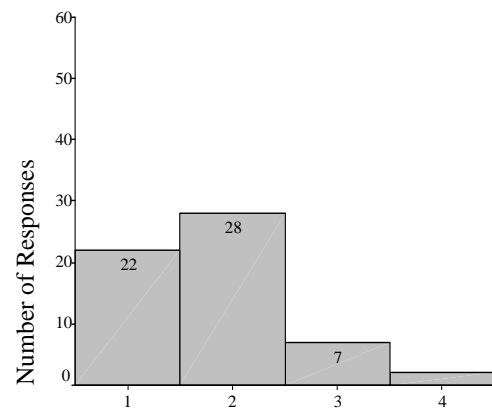
Impact Question 14 - Principals

N = 23 Mean = 1.91 SD = .85



Impact Question 14 - Teachers

N = 16 Mean = 1.87 SD = .92 NO = 1



Impact Question 14 - Aggregate

N = 60 Mean = 1.81 SD = .78 NO = 1

Principal (60.9%) responses to question 14 show consensus on the extent of implementation at scale Item 2 (systematic approach, well integrated and implemented) with some variance ($SD = .88$). The central office panel did not reach consensus, but 47.6% responded the same as principals. Teacher responses varied across the scale with only 31.3% agreeing with the principal and central office panels with two members responding “not observed.” The greatest variation in responses came from the teacher panel ($SD = 1.09$). All panel groups reached consensus just falling short of consensus across groups agreeing that implementation was “difficult.” The least variance in responses occurred in the central office panel ($SD = .59$). The central office (57.1%) panel agreed on moderate impact on collective efficacy with 95.8% of the panel perceiving impact as strong or moderate. Principal (78.3%) and teacher (75%) responses also clustered between strong and moderate impact with greater variance in both groups (principals, $SD = .85$ and teachers, $SD = .92$). No consensus occurred in the aggregate data, but 83.4% of responses showed strong to moderate impact.

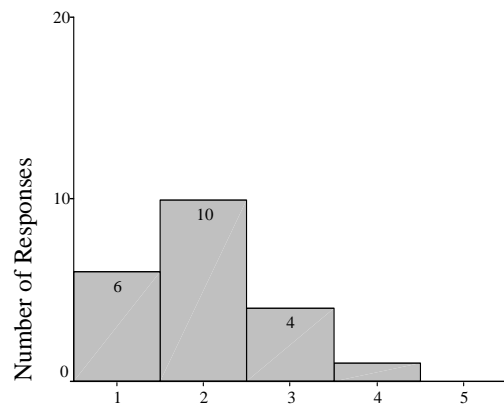
Question 15 asked, “To what extent has the district analyzed data and reviewed district performance as it relates to goals and action plans?” Figures 4.17.a through 4.17.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 15.

Figure 4.17.a. RQ 1 Question 15: Extent of Implementation of the Baldrige Education Criteria

15. To what extent has the district analyzed data and reviewed district performance as it relates to goals and action plans?

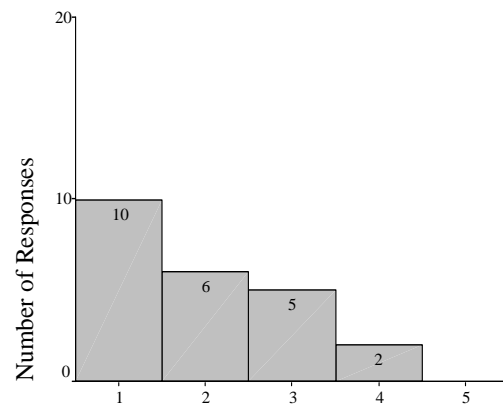
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



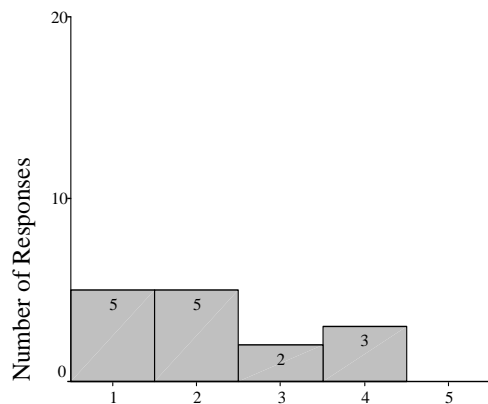
Implementation Question 15 - Central Office

N = 21 Mean = 2.05 SD = .97



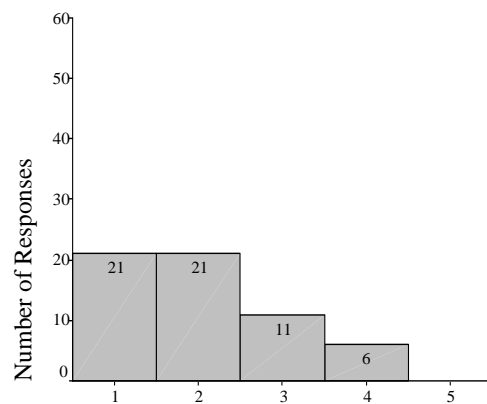
Implementation Question 15 - Principals

N = 23 Mean = 1.96 SD = 1.02



Implementation Question 15 - Teachers

N = 16 Mean = 2.20 SD = 1.15 NO = 1



Implementation Question 15 - Aggregate

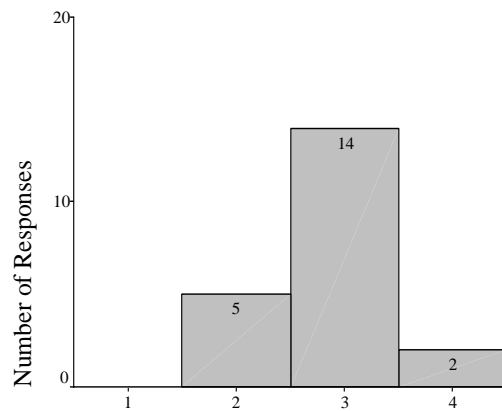
N = 60 Mean = 2.05 SD = 1.02 NO = 1

Figure 4.17.b. RQ 1 Question 15: Difficulty of Implementation of the Baldrige Education Criteria

15. To what extent has the district analyzed data and reviewed district performance as it relates to goals and action plans?

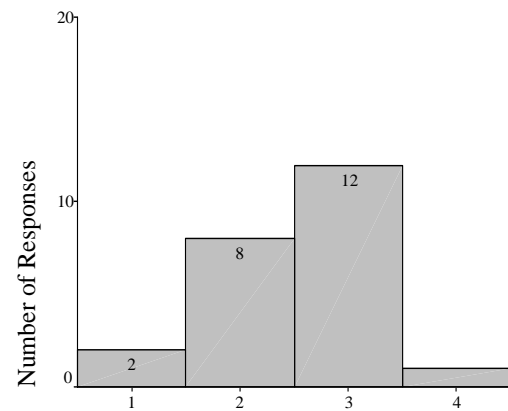
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



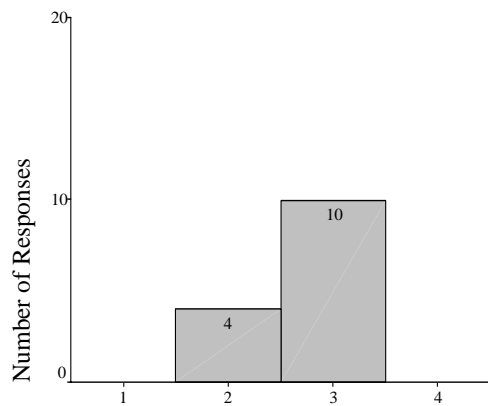
Difficulty Question 15 - Central Office

N = 21 Mean = 2.86 SD = .57



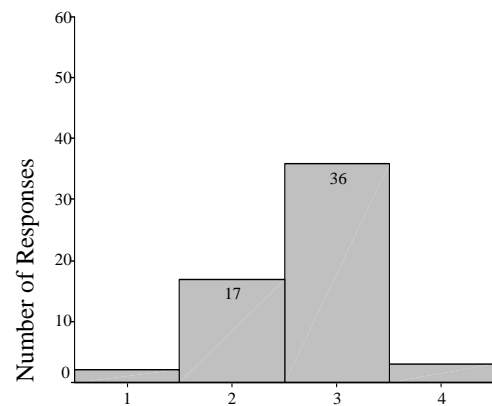
Difficulty Question 15 - Principals

N = 23 Mean = 2.52 SD = .73



Difficulty Question 15 - Teachers

N = 16 Mean = 2.71 SD = .73 NO = 2



Difficulty Question 15 - Aggregate

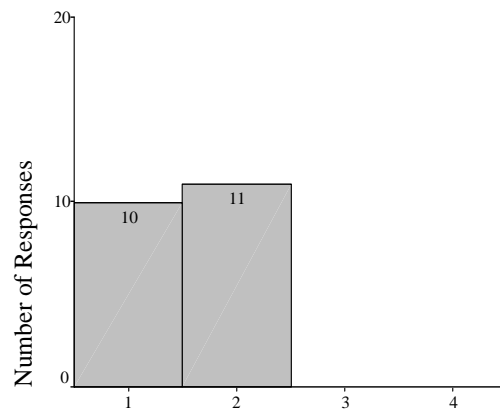
N = 60 Mean = 2.69 SD = .68 NO = 2

Figure 4.17.c. RQ 1 Question 15: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

15. To what extent has the district analyzed data and reviewed district performance as it relates to goals and action plans?

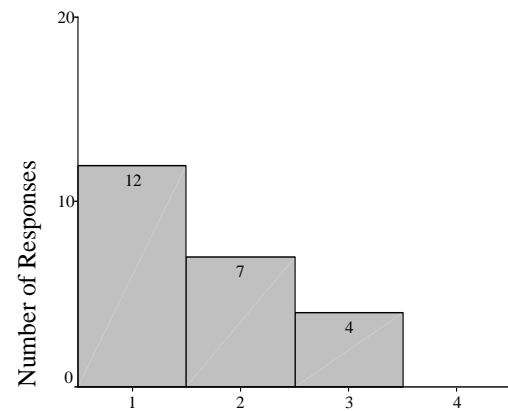
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



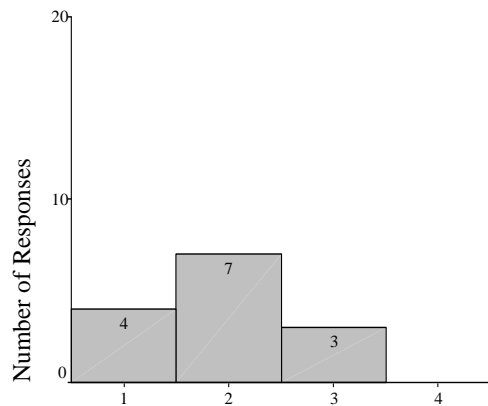
Impact Question 15 - Central Office

N = 21 Mean = 1.52 SD = .51



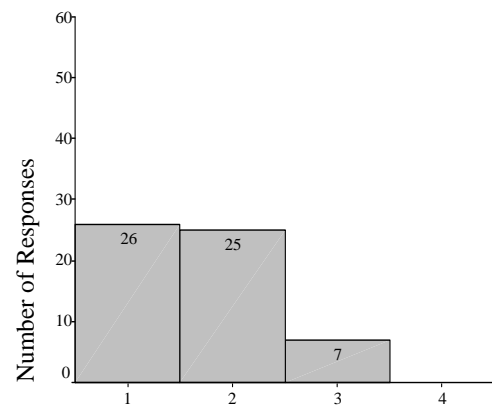
Impact Question 15 - Principals

N = 23 Mean = 1.65 SD = .78



Impact Question 15 - Teachers

N = 16 Mean = 1.93 SD = .73 NO = 2



Impact Question 15 - Aggregate

N = 60 Mean = 1.67 SD = .69 NO = 2

None of the panel groups reached consensus on the extent of implementation for question 15, but most responses clustered at scale Items 1 and 2 with responses varying across the scale with the greatest dispersion within the teacher panel ($SD = 1.15$). All panel groups reached consensus and across panel groups agreeing that implementation was “difficult.” The least variance in response occurred in the central office panel ($SD = .57$) with a standard deviation of .73 for the principal and teacher panels. Central office concurred on moderate impact on collective efficacy with 100% of the members responding to either strong or moderate impact. The principal panel reached consensus on a strong impact, and teachers did not concur but 68.8% responded to strong or moderate impact. Similar results appeared in the aggregate data; 85% of responses clustered between strong to moderate impact.

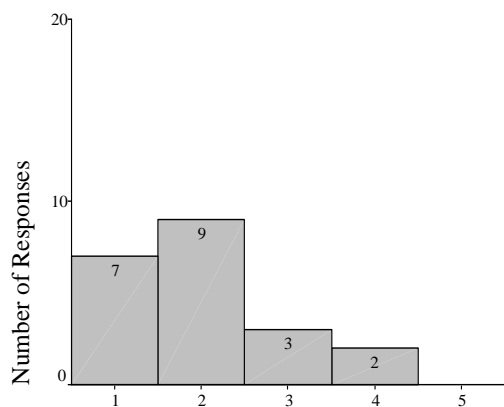
Question 16 asked, “To what extent has the district disaggregated and analyzed data to modify and improve instruction to enhance student achievement?” Figures 4.18.a through 4.18.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 16.

Figure 4.18.a. RQ 1 Question 16: Extent of Implementation of the Baldrige Education Criteria

16. To what extent has the district disaggregated and analyzed data to modify and improve instruction to enhance student achievement?

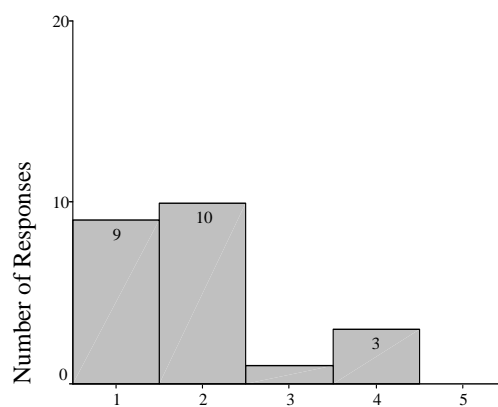
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



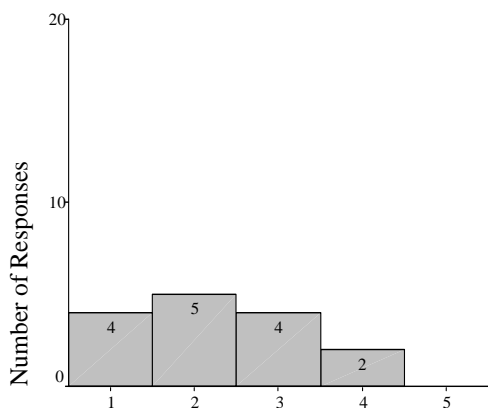
Implementation Question 16 - Central Office

N = 21 Mean = 2.05 SD = 1.07



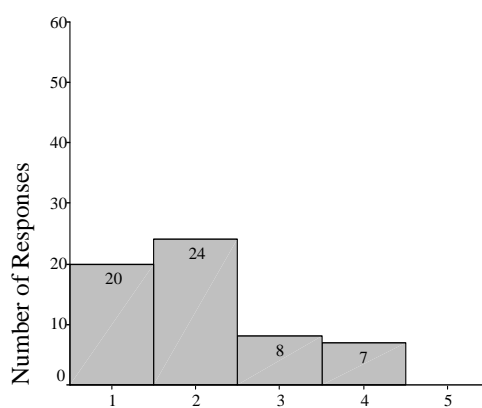
Implementation Question 16 - Principals

N = 23 Mean = 1.96 SD = 1.11



Implementation Question 16 - Teachers

N = 16 Mean = 2.27 SD = 1.03 NO = 1



Implementation Question 16 - Aggregate

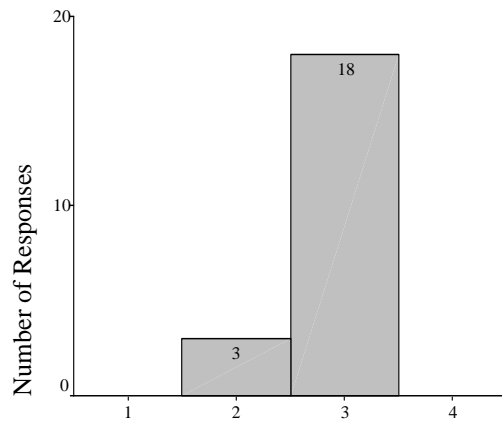
N = 60 Mean = 2.07 SD = 1.06 NO = 1

Figure 4.18.b. RQ 1 Question 16: Difficulty of Implementation of the Baldrige Education Criteria

16. To what extent has the district disaggregated and analyzed data to modify and improve instruction to enhance student achievement?

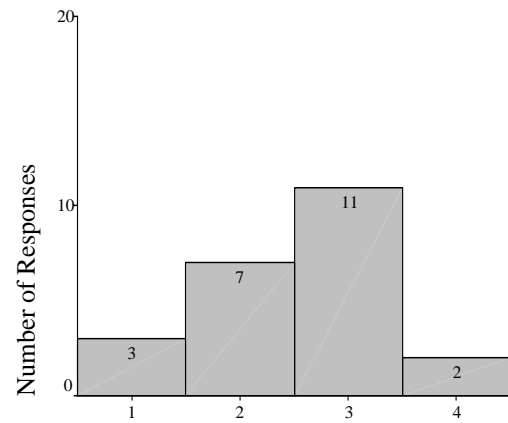
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



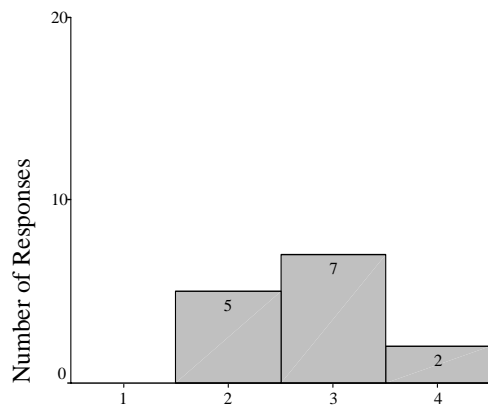
Difficulty Question 16 - Central Office

N = 21 Mean = 2.86 SD = .36



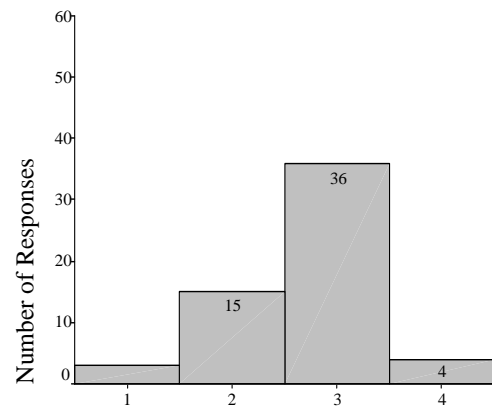
Difficulty Question 16 - Principals

N = 23 Mean = 2.52 SD = .85



Difficulty Question 16 - Teachers

N = 16 Mean = 2.79 SD = .70 NO = 2



Difficulty Question 16 - Aggregate

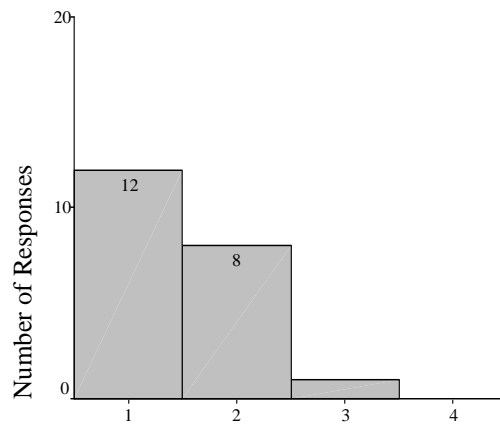
N = 60 Mean = 2.71 SD = .68 NO = 2

Figure 4.18.c. RQ 1 Question 16: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

16. To what extent has the district disaggregated and analyzed data to modify and improve instruction to enhance student achievement?

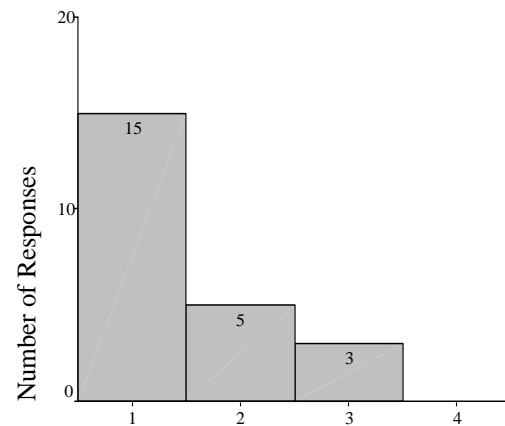
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



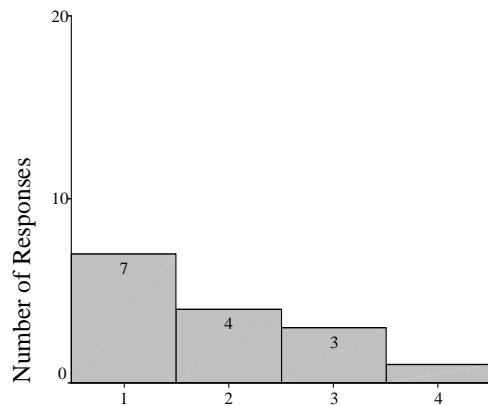
Impact Question 16 - Central Office

N = 21 Mean = 1.48 SD = .60



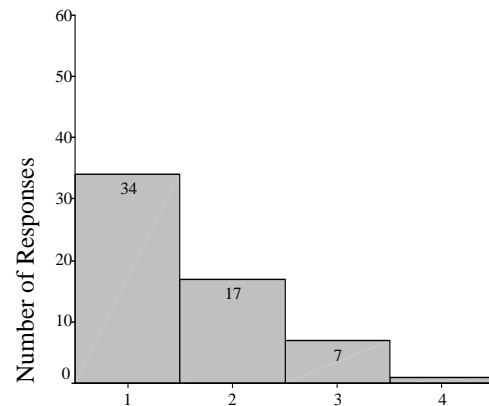
Impact Question 16 - Principals

N = 23 Mean = 1.48 SD = .73



Impact Question 16 - Teachers

N = 16 Mean = 1.87 SD = .99 NO = 1



Impact Question 16 - Aggregate

N = 60 Mean = 1.58 SD = .77 NO = 1

Central office and principal data clustered at scale Items 1 or 2 in response to the extent of implementation for question 16 with responses varying across the scale ($SD = 1.07$ for central office and 1.11 for principals). Teacher responses ranged from scale Item 1 to 4 with 1 member responding “not observed” resulting in a standard deviation of 1.03 . The data showed a strong consensus that implementation was difficult within the central office panel (85.7%) with very little variation ($SD = .36$). In both the principal and teacher panels most responses indicated implementation “difficult,” but 30.8% (principals) to 31.3% (teachers) considered implementation “easy.” The aggregate data (60%) showed consensus that implementation was “difficult.” Central office and principals reached consensus that implementation had a strong impact on collective efficacy. However, the teacher panel responded from strong (43.8%) to “no” impact and two members responding “not observed.” The aggregate data reflects responses clustered between strong (56.7%) and moderate (28.3%) impact.

The data for the questions related to Item 3.2 show no consensus regarding the extent of implementation and considerable variation in responses ($SD = .88$ to 1.09) with the greatest variance within the teacher panels. For questions 14 and 15 all panel groups reached consensus on difficulty of implementation; and, for question 16 the majority of

responses indicated implementation as difficult with the least variance within the central office panels on all questions. Overall, panel group responses clustered between strong to moderate impact on collective efficacy for this Item.

4.2 Information Management. Question 17 specifically links to Baldrige Criteria assessment Item 4.2 Information Management and focuses on how organizations ensure the quality and availability of data and information for faculty, staff, students, stakeholders, and suppliers or partners. This Item addresses not only the availability of data, its integrity, reliability, accuracy, and confidentiality but also whether the hardware and software is user friendly, reliable, and updated to remain current with educational service needs.

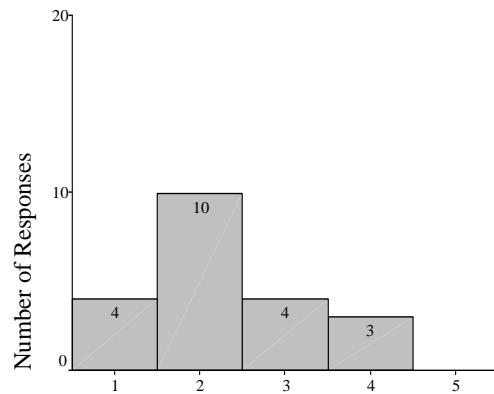
Question 17 asked, “To what extent has the district employed an effective system for making needed data and information available?” Figures 4.19.a through 4.19.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 17.

Figure 4.19.a. RQ 1 Question 17: Extent of Implementation of the Baldrige Education Criteria

17. To what extent has the district employed an effective system for making needed data and information available?

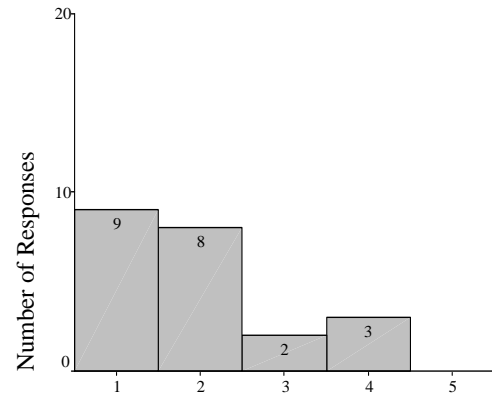
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



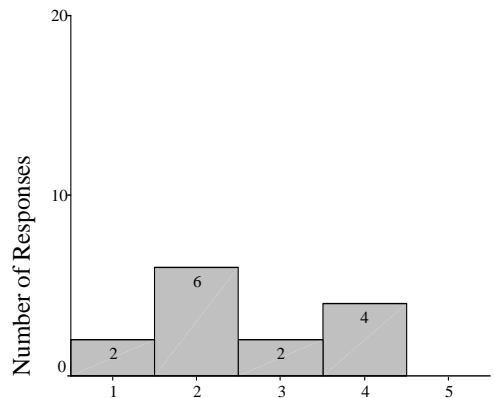
Implementation Question 17 - Central Office

N = 21 Mean = 2.33 SD = 1.06



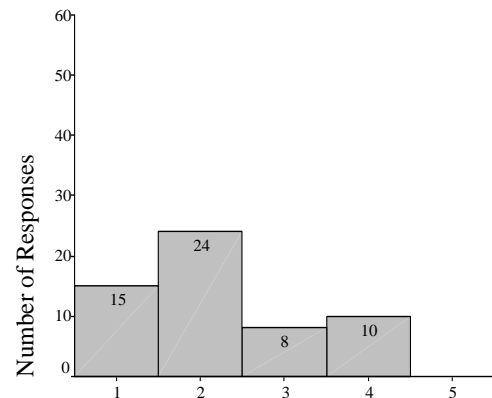
Implementation Question 17 - Principals

N = 23 Mean = 1.95 SD = 1.05 NO = 1



Implementation Question 17 - Teachers

N = 16 Mean = 2.57 SD = 1.09 NO = 2



Implementation Question 17 - Aggregate

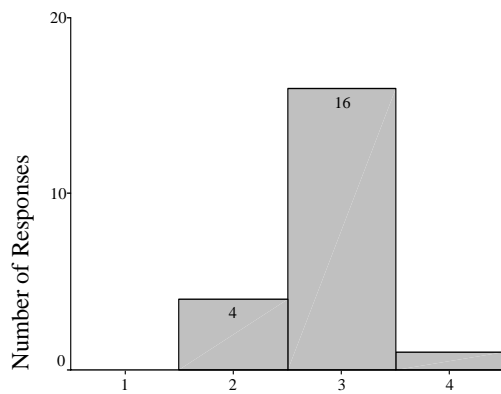
N = 60 Mean = 2.25 SD = 1.07 NO = 3

Figure 4.19.b. RQ 1 Question 17: Difficulty of Implementation of the Baldrige Education Criteria

17. To what extent has the district employed an effective system for making needed data and information available?

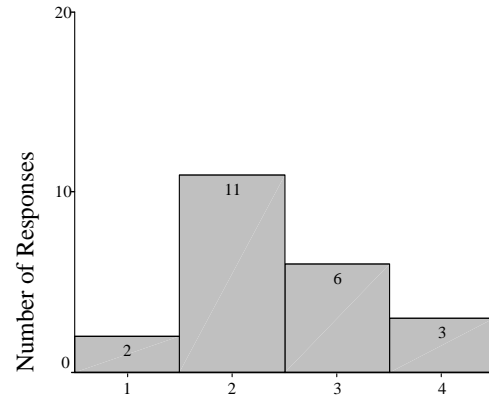
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



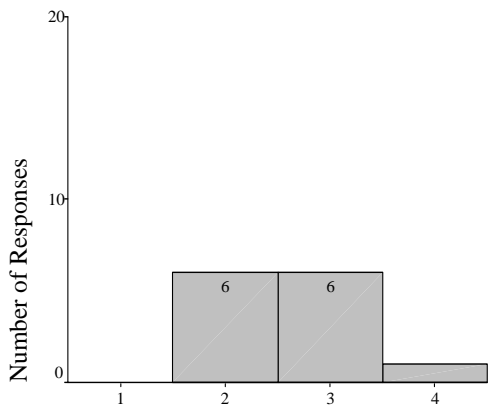
Difficulty Question 17 - Central Office

N = 21 Mean = 2.86 SD = .48



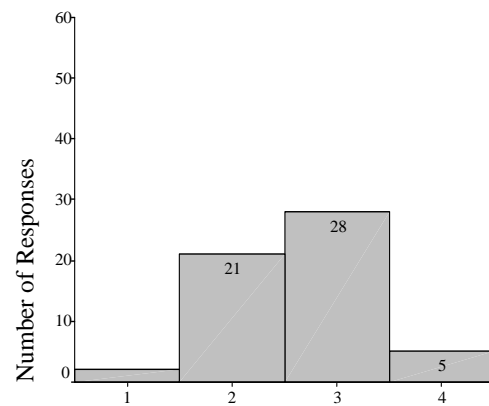
Difficulty Question 17 - Principals

N = 23 Mean = 2.45 SD = .86 NO = 1



Difficulty Question 17 - Teachers

N = 16 Mean = 2.62 SD = .65 NO = 3



Difficulty Question 17 - Aggregate

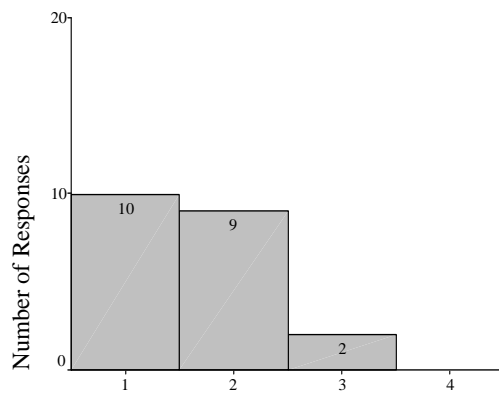
N = 60 Mean = 2.64 SD = .70 NO = 4

Figure 4.19.c. RQ 1 Question 17: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

17. To what extent has the district employed an effective system for making needed data and information available?

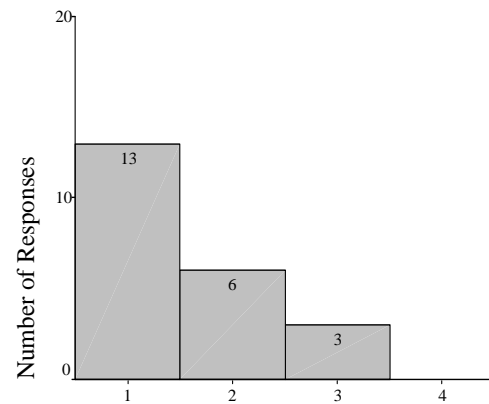
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



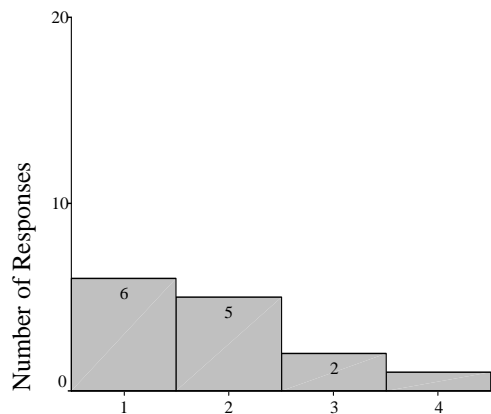
Impact Question 17 - Central Office

N = 21 Mean = 1.62 SD = .67



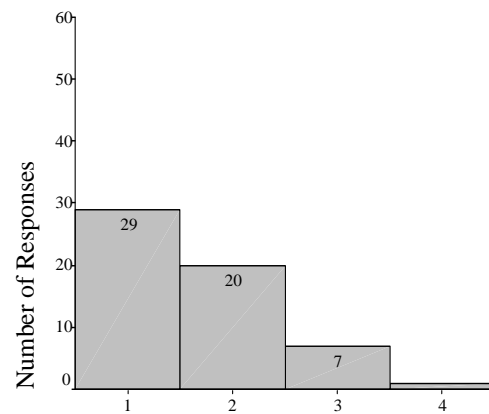
Impact Question 17 - Principals

N = 23 Mean = 1.55 SD = .74 NO = 1



Impact Question 17 - Teachers

N = 16 Mean = 1.86 SD = .95 NO = 2



Impact Question 17 - Aggregate

N = 60 Mean = 1.65 SD = .77 NO = 3

None of the panel groups reached consensus regarding the extent of implementation. The central office panel (47.6%) showed the strongest response at scale Item 2 (systematic approach, well integrated and implemented), and principal responses clustered at scale Items 1 (39.1%) and 2 (34.8%). The teacher panel responses ranged from 1 to 4 with two members responding “not observed” resulting in a standard deviation of 1.09. The central office panel (76.2%) agreed implementation was difficult with the least variance in responses ($SD = .48$). Principal (47.8%) responses indicated implementation was easy but also demonstrated variance in responses ($SD = .86$), and teachers were nearly evenly divided between easy and difficult with three members responding, “not observed.” Only the principal panel (56.5%) reached consensus perceiving a strong impact on collective efficacy, but both the principal (90.5%) and teacher (68.8%) responses clustered at strong to moderate impact. The central office panel reflected the least variance in responses ($SD = .67$), and teachers had the greatest variance ($SD = .95$) in responses to impact.

Perceptions of the extent of implementation ranged across the scale including three “not observed” responses. Although the central office panel considered implementation difficult, most principals viewed it as easy, and teachers gave a mixed response. Only the principal panel reached consensus regarding impact on collective efficacy, but in all groups and the aggregate the responses clustered at strong to moderate.

Faculty and Staff Focus

Category 5 of the Baldrige Education Criteria focuses on how the organization motivates and enables faculty and staff to develop and utilize their full potential in alignment with the strategic priorities and action plans of the organization. Equally important in this Category is how the organization builds a culture and a work environment that supports faculty and staff while maintaining a climate conducive to performance excellence and to personal and organizational growth.

5.1 Work Systems. Question 18 and 19 link to Baldrige Criteria assessment Item 5.1 Work Systems, which relates to how the organization designs a system that motivates and enables faculty and staff to achieve high performance. This Item considers jobs, compensation, career progression, and related workforce practices.

Question 18 asked, “To what extent has the district organized and managed work and jobs to promote cooperation, initiative, innovation, and organizational culture?”

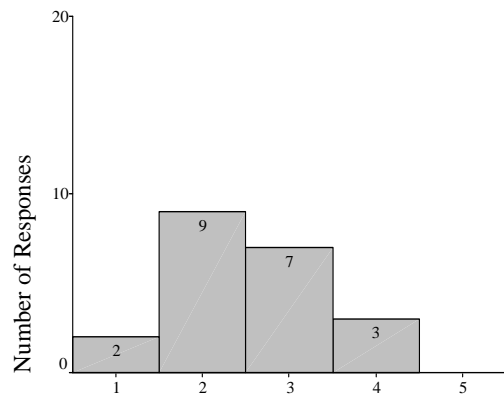
Figures 4.20.a through 4.20.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 18.

Figure 4.20.a. RQ 1 Question 18: Extent of Implementation of the Baldrige Education Criteria

18. To what extent has the district organized and managed work and jobs to promote cooperation, initiative, innovation, and organizational culture?

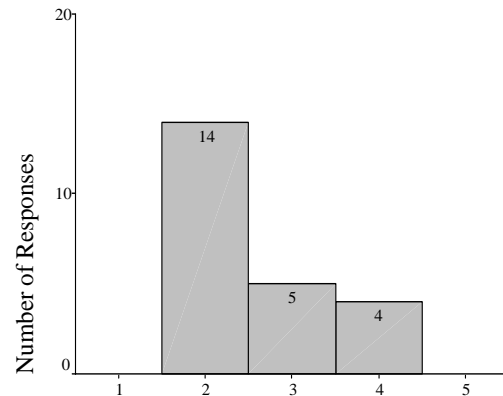
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



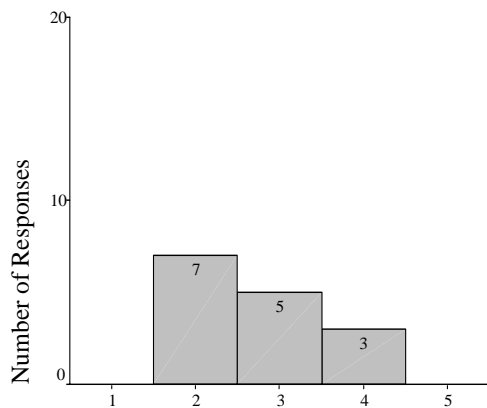
Implementation Question 18 - Central Office

N = 21 Mean = 2.57 SD = .98



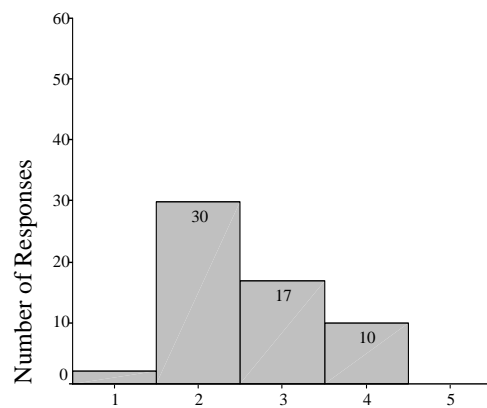
Implementation Question 18 - Principals

N = 23 Mean = 2.57 SD = .79



Implementation Question 18 - Teachers

N = 16 Mean = 2.73 SD .80 NO = 1



Implementation Question 18 - All Districts

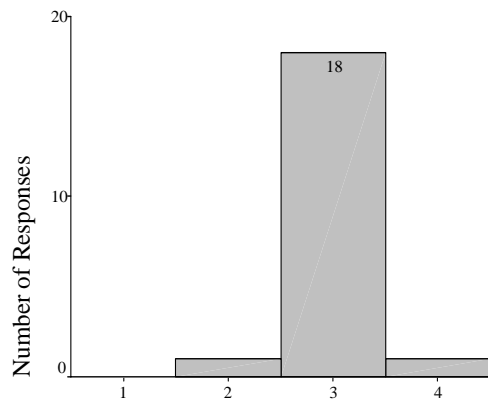
N = 60 Mean = 2.61 SD = .85 NO = 1

Figure 4.20.b. RQ 1 Question 18: Difficulty of Implementation of the Baldrige Education Criteria

18. To what extent has the district organized and managed work and jobs to promote cooperation initiative, innovation, and organizational culture?

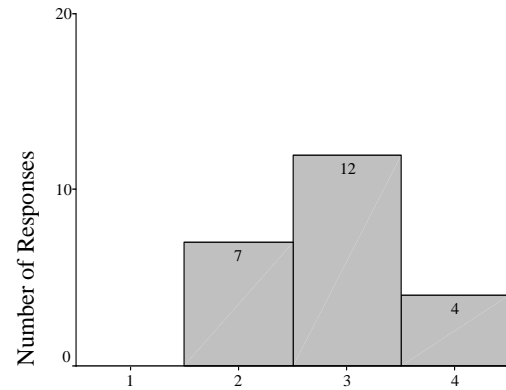
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



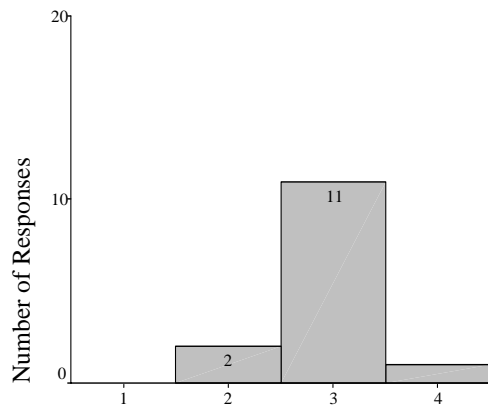
Difficulty Question 18 - Central Office

N = 21 Mean = 3.00 SD = .32 NO = 1



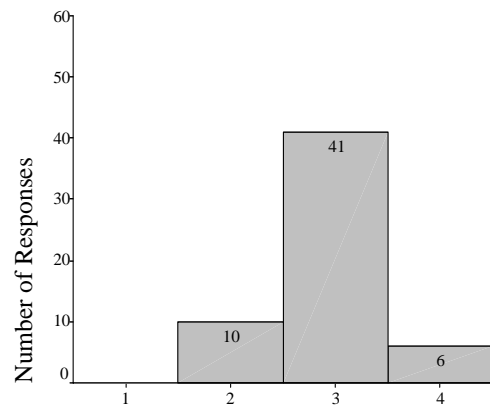
Difficulty Question 18 - Principals

N = 23 Mean = 2.87 SD = .69



Difficulty Question 18 - Teachers

N = 16 Mean = 2.93 SD = .47 NO = 2



Difficulty Question 18 - Aggregate

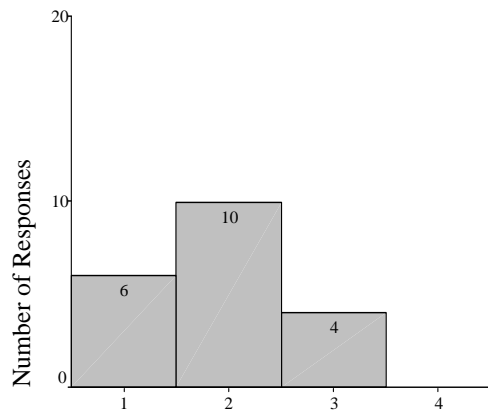
N = 60 Mean = 2.93 SD = .53 NO = 3

Figure 4.20.c. RQ 1 Question 18: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

18. To what extent has the district organized and managed work and jobs to promote cooperation, initiative, innovation, and organizational culture?

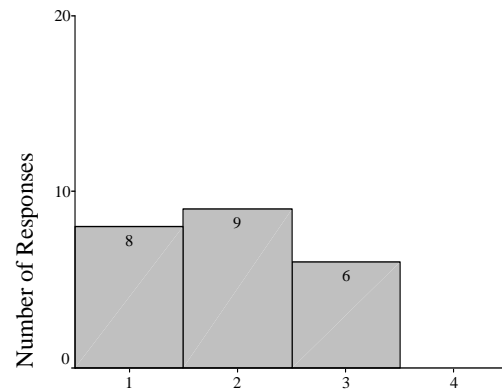
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



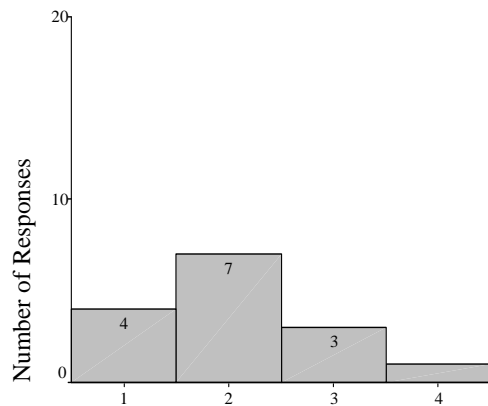
Impact Question 18 - Central Office

N = 21 Mean = 1.90 SD = .72 NO = 1



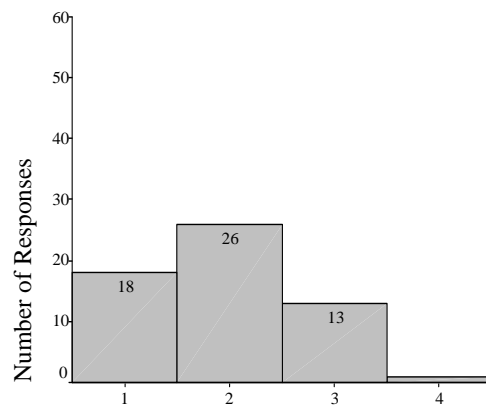
Impact Question 18 - Principals

N = 23 Mean = 1.91 SD = .79



Impact Question 18 - Teachers

N = 16 Mean = 2.07 SD = .88 NO = 1



Impact Question 18 - Aggregate

N = 60 Mean = 1.95 SD = .78 NO = 2

The data on central office and teacher responses clustered at scale Items 2 and 3. Principals (60.9%) reached consensus on the extent of implementation at scale Item 2 (systematic approach, well integrated and implemented). Within all panel groups and the aggregate data, the majority of responses clustered at scale Item 2 and 3; however, the greatest variance occurred in the teacher panel ($SD = .80$). Central office (85.7%), principals (52.2%), and teachers (68.8%) reached consensus that implementation was “difficult.” The least variance occurred within central office ($SD = .32$). The responses regarding the impact on collective efficacy largely clustered at strong to moderate impact with the aggregate cluster at 73.3% of responses. The greatest variance occurred within the teacher panel ($SD = .88$).

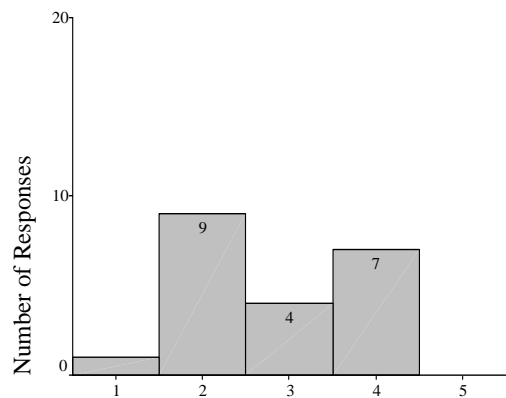
Question 19 asked, “To what extent has the district motivated faculty and staff to develop and utilize their full potential?” Figures 4.21.a through 4.21.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 19.

Figure 4.21.a. RQ 1 Question 19: Extent of Implementation of the Baldrige Education Criteria

19. To what extent has the district motivated faculty and staff to develop and utilize their full potential?

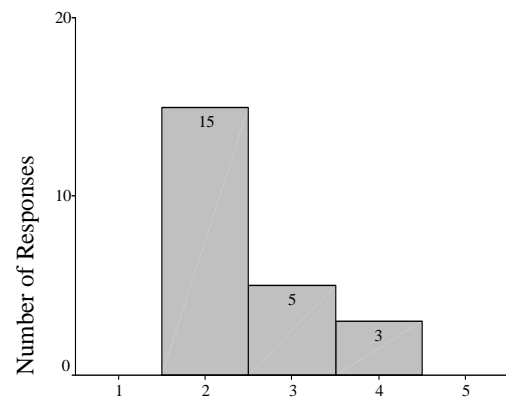
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



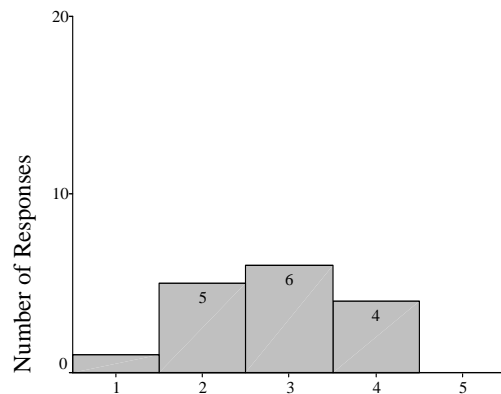
Implementation Question 19 - Central Office

N = 21 Mean = 2.81 SD = .98



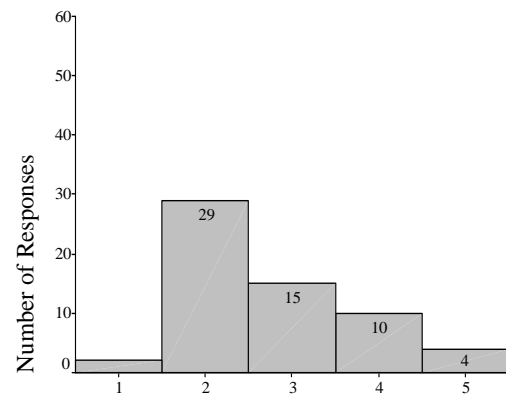
Implementation Question 19 - Principals

N = 23 Mean = 2.52 SD = .85



Implementation Question 19 - Teachers

N = 16 Mean = 3.00 SD = 1.21



Implementation Question 19 - Aggregate

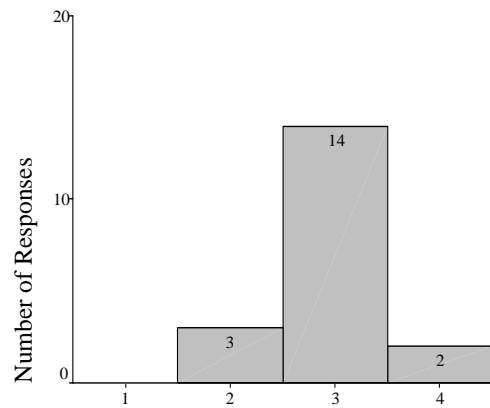
N = 60 Mean = 2.75 SD = 1.00

Figure 4.21.b. RQ 1 Question 19: Difficulty of Implementation of the Baldrige Education Criteria

19. To what extent has the district motivated faculty and staff to develop and utilize their full potential?

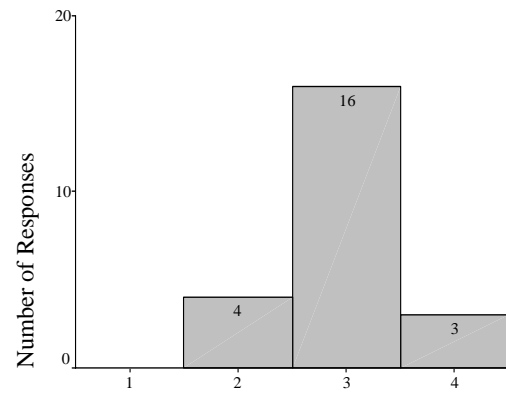
Difficulty of Implementation Scale

1. Very Easy
2. Easy
3. Difficult
4. Very Difficult
5. Not Observed (NO)



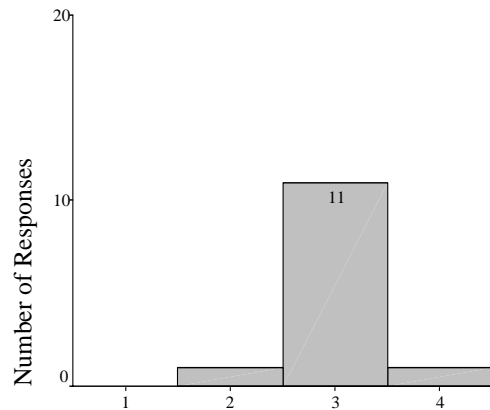
Difficulty Question 19 - Central Office

N = 20 Mean = 2.95 SD = .52 NO = 1



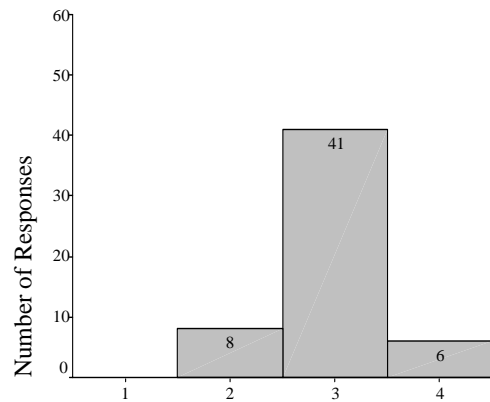
Difficulty Question 19 - Principals

N = 23 Mean = 2.96 SD = .56



Difficulty Question 19 - Teachers

N = 16 Mean = 3.00 SD = .41 NO = 3



Difficulty Question 19 - Aggregate

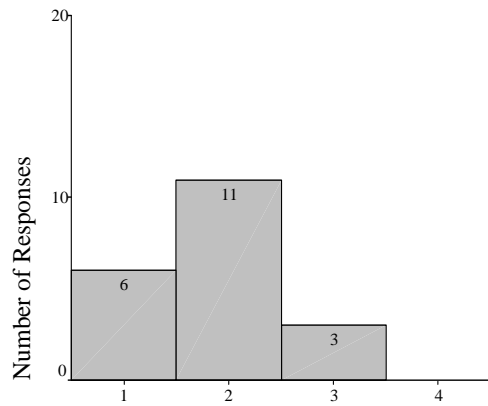
N = 59 Mean = 2.96 SD = .51 NO = 4

Figure 4.21.c. RQ 1 Question 19: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

19. To what extent has the district motivated faculty and staff to develop and utilize their full potential?

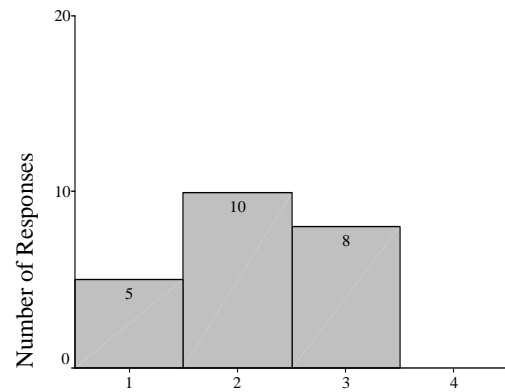
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



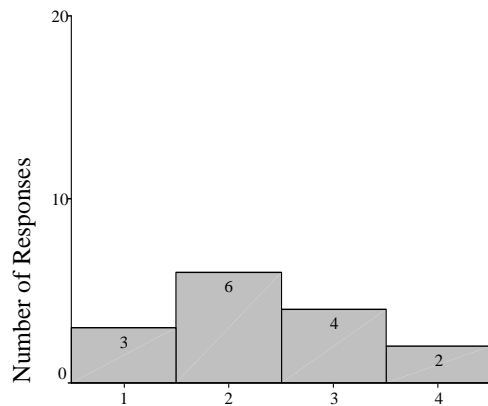
Impact Question 19 - Central Office

N = 21 Mean = 1.85 SD = .67 NO = 1



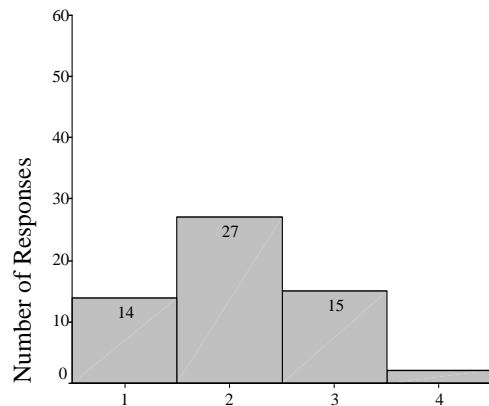
Impact Question 19 - Principals

N = 23 Mean = 2.13 SD = .76



Impact Question 19 - Teachers

N = 16 Mean = 2.33 SD = .98 NO = 1



Impact Question 19 - Aggregate

N = 60 Mean = 2.09 SD = .80 NO = 2

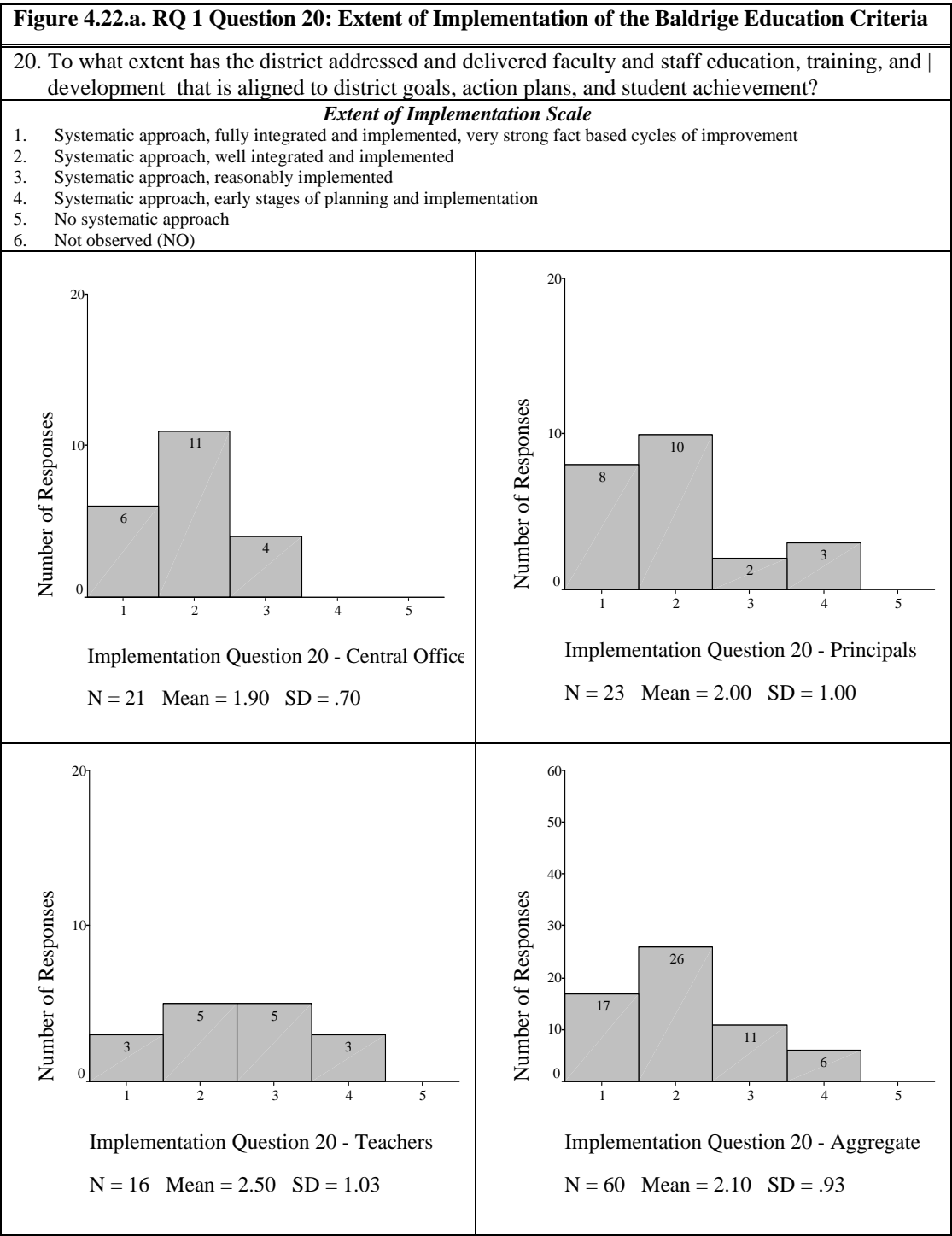
Central office ($SD = .98$) and teachers ($SD = 1.21$) show the greatest variance in response with no clear indication of the perceptions of the extent of implementation for question 19. Principals (65.2%) did concur on scale Item 2 with the least variance in responses ($SD = .85$). Each panel and the aggregate reflected consensus that implementation was difficult with little variance and three members responding, “not observed.” The central office panel reached consensus on moderate impact on collective efficacy. Responses in the principal panel ranged from strong to “limited,” and the teacher panel, with the largest variance ($SD = .98$), responded across the scale. The aggregate reflects 68.3% of responses at moderate to strong impact.

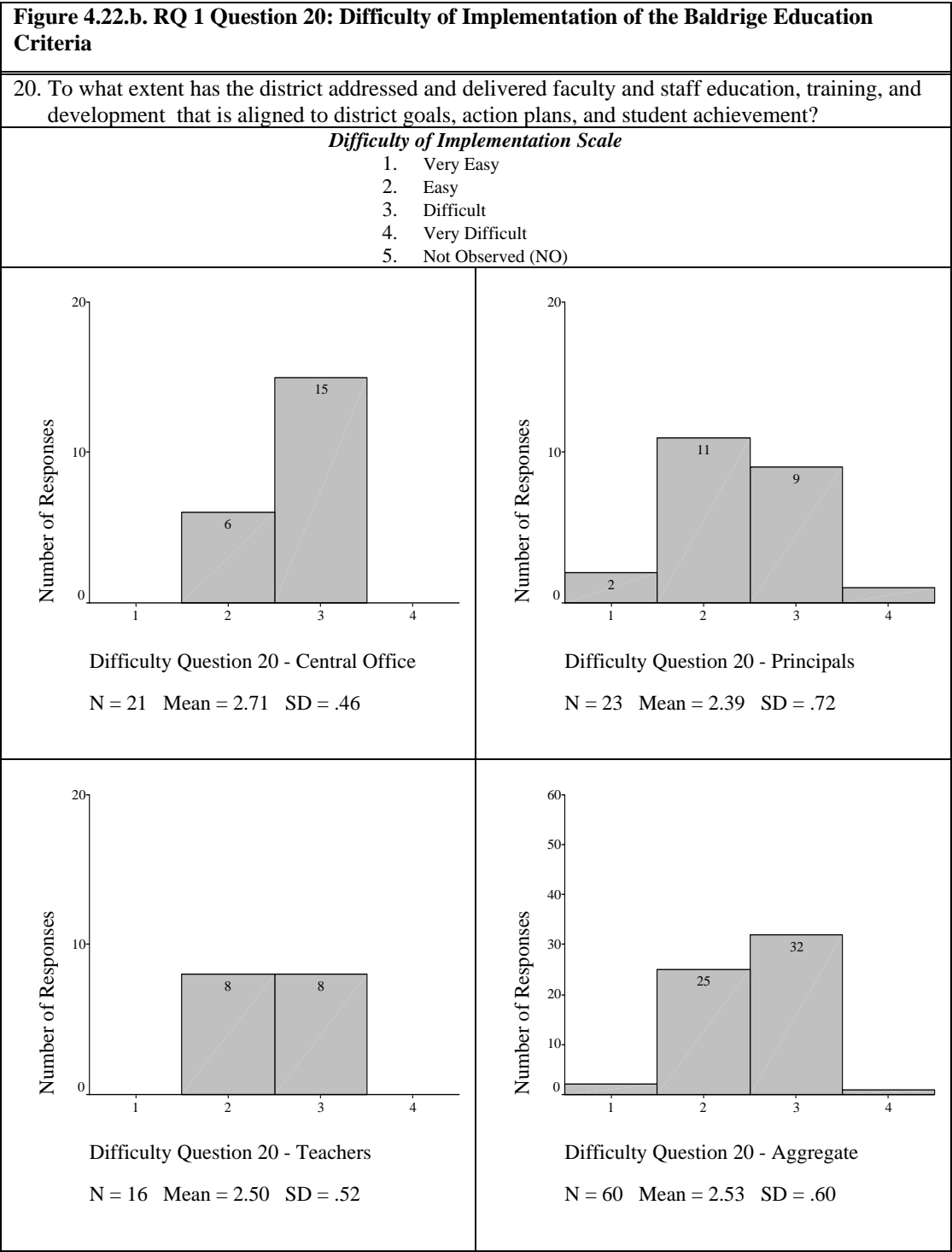
The responses to this Item show that central office and teachers have the greatest variances in responses concerning the extent of implementation and the impact on collective efficacy, and principals reached consensus on both questions. Within all panels and the aggregate, consensus was reached on the difficulty of implementation.

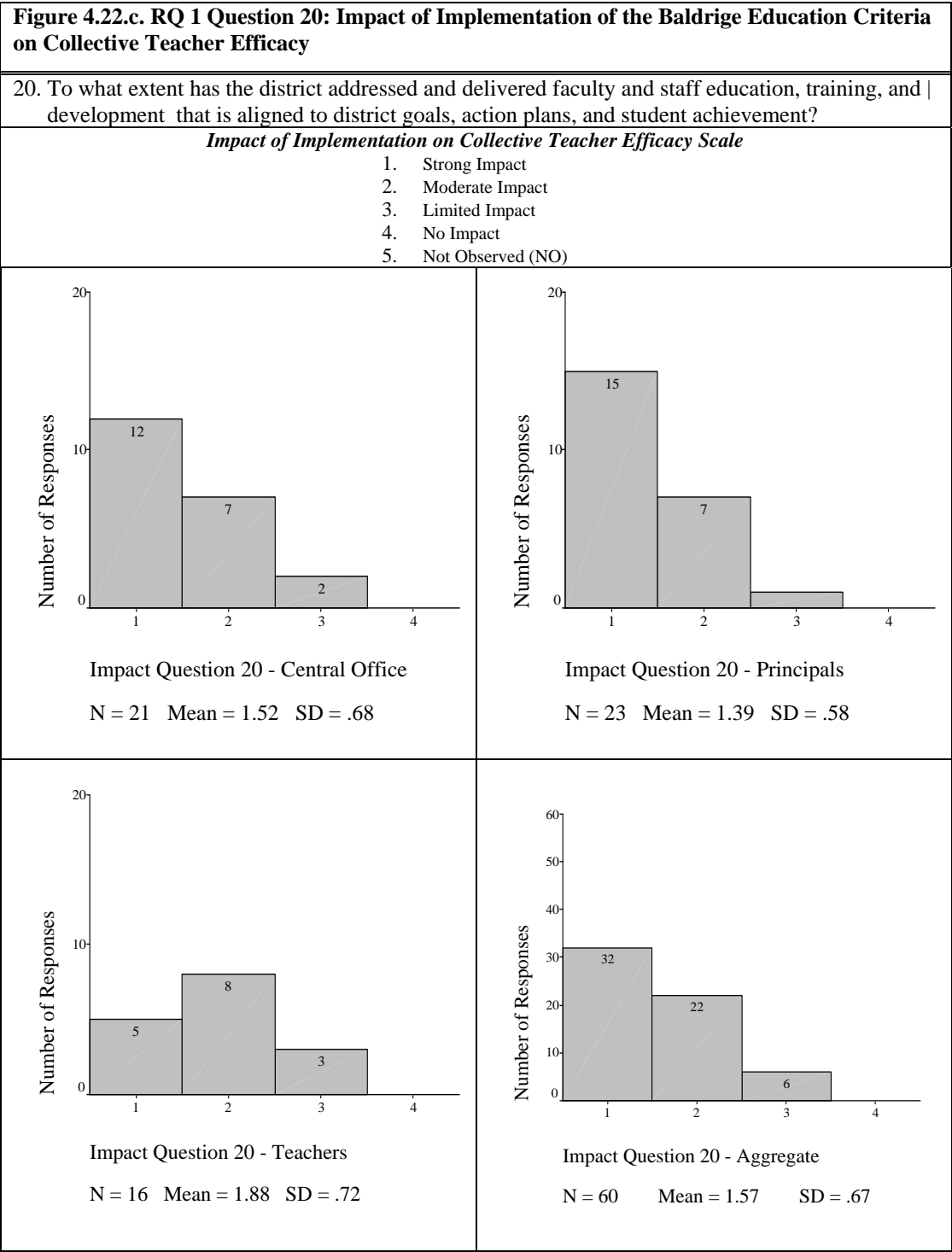
Impact on collective efficacy had the greatest variance within the teacher panel and the least in the central office panel, but the aggregate data shows a moderate to strong impact.

5.2 Faculty and Staff Education, Training, and Development. Question 20 links to Baldrige Criteria assessment Item 5.2 Faculty and Staff Education, Training, and Development and considers how the organization's faculty and staff education and training support the achievement of strategies and objectives. This Item also includes examination of processes for building faculty and staff knowledge, skills, and capabilities that contribute to high performance.

Question 20 asked, "To what extent has the district addressed and delivered faculty and staff education, training, and development that is aligned to district goals, action plans, and student achievement?" Figures 4.22.a through 4.22.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 20.







The data from this question show that the central office panel (52.4%) reached consensus agreeing on the extent of implementation at scale Item 2. Principal responses clustered at scale Item 1 and 2, and teacher responses spread across scale Items 1 through 4 resulting in the greatest variance ($SD = 1.03$). Only the central office panel showed agreement that this Item was difficult to implement with little variance ($SD = .46$). Both principal and teacher responses were divided between easy and difficult to implement, and the aggregate reflected the same results. The central office panel concurred on strong impact on collective efficacy. While neither the principal or teacher panel reached consensus, the majority of responses on both clustered at strong to moderate impact. The aggregate data reflected 90% of the responses as strong to moderate impact.

The extent of implementation of this Item centered mainly at scale Items 1 and 2 indicating a high degree of implementation, but the panel groups differed in their perceptions of the difficulty of implementation. All panel groups and the aggregate data show perceptions of strong to moderate impact on collective efficacy.

5.3 Faculty and Staff Well-Being and Satisfaction. Questions 21 and 22 link to Baldrige Criteria assessment Item 5.3 Faculty and Staff Well-Being and Satisfaction that focuses on how the organization maintains a work environment and faculty and staff climate that contributes to the well-being, satisfaction, and motivation of all employees. This Item also examines workplace health, safety, and ergonomics as well as evaluation methods and measures for determining faculty and staff satisfaction and motivation

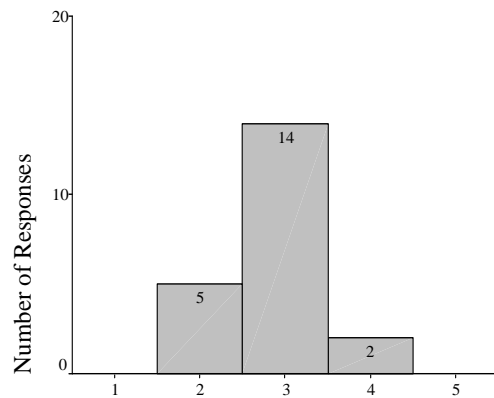
Question 21 asked, “To what extent has the district ensured workplace health, safety, and ergonomics?” Figures 4.23.a through 4.23.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 21.

Figure 4.23.a. RQ 1 Question 21: Extent of Implementation of the Baldrige Education Criteria

21. To what extent has the district ensured workplace health, safety, and ergonomics?

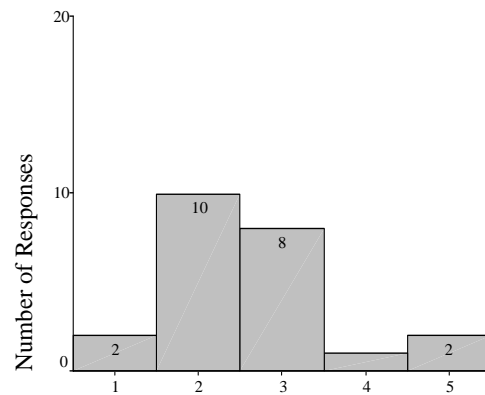
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



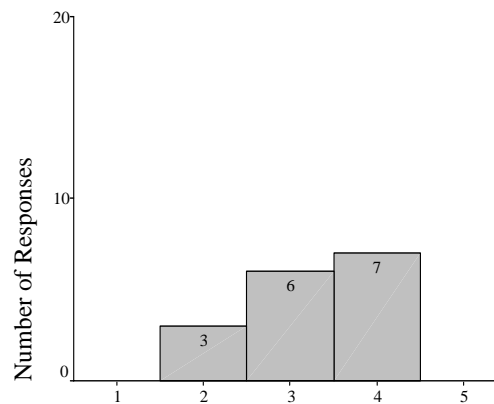
Implementation Question 21 - Central Office

N = 21 Mean = 2.86 SD = .57



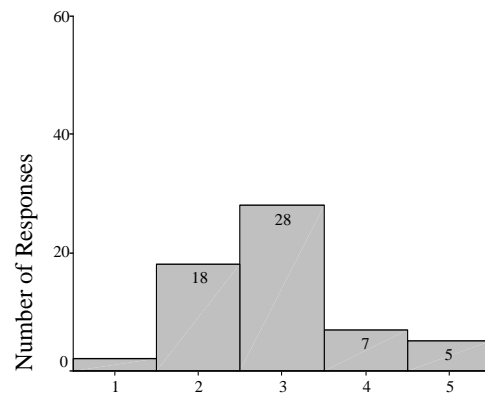
Implementation Question 21 - Principals

N = 23 Mean = 2.61 SD = 1.03



Implementation Question 21 - Teachers

N = 16 Mean = 3.44 SD = 1.03



Implementation Question 21 - Aggregate

N = 60 Mean = 2.92 SD = .94

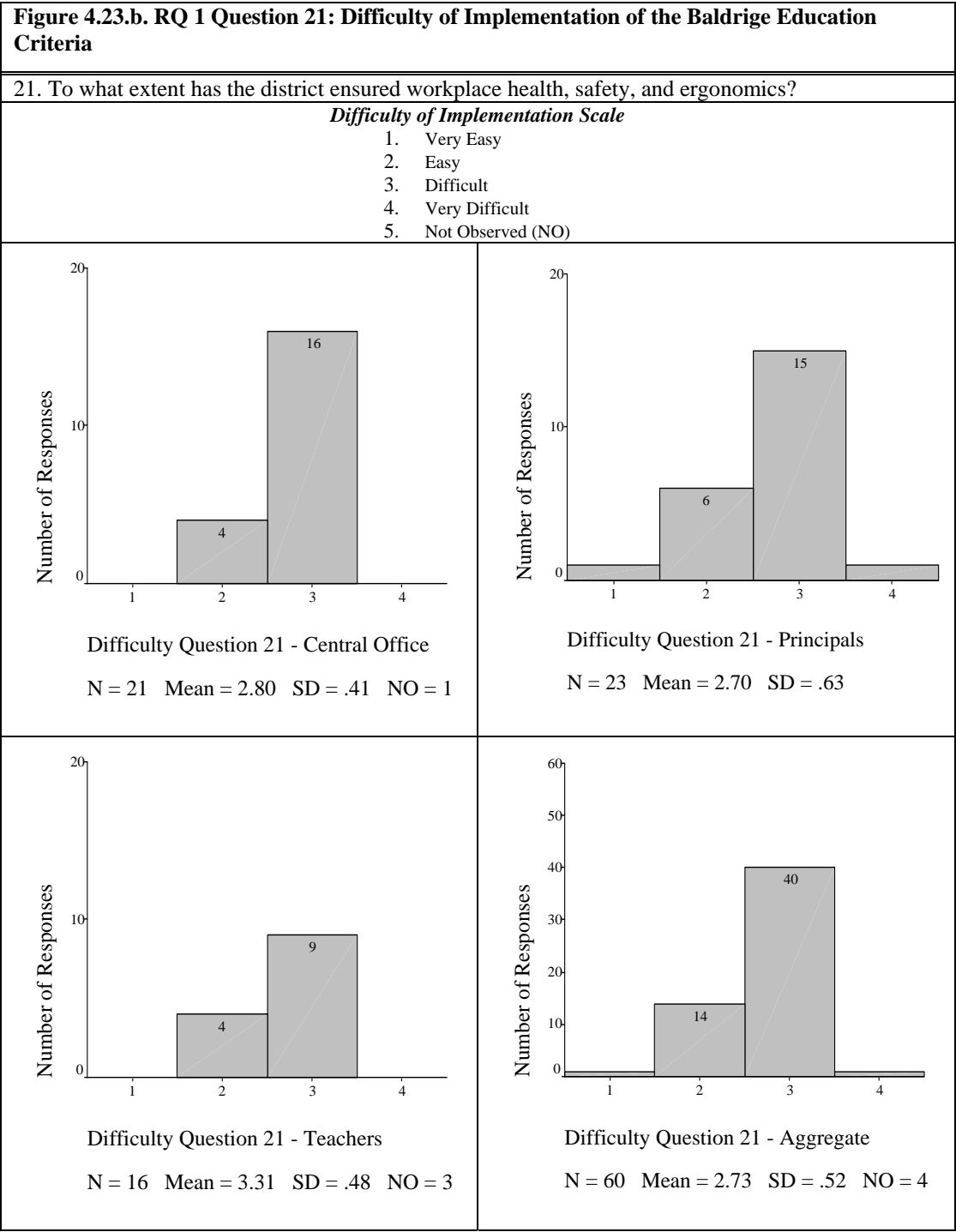
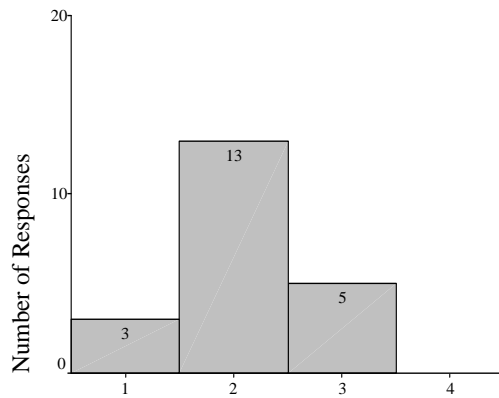


Figure 4.23.c. RQ 1 Question 21: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

21. To what extent has the district ensured workplace health, safety, and ergonomics?

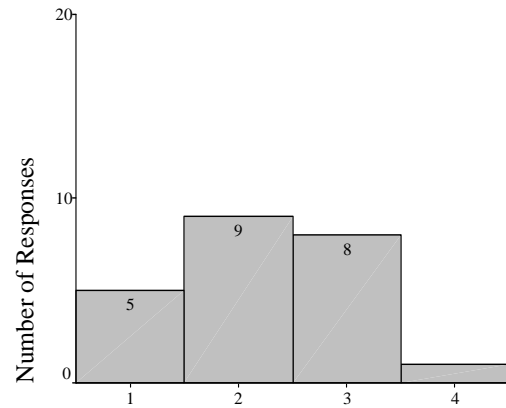
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



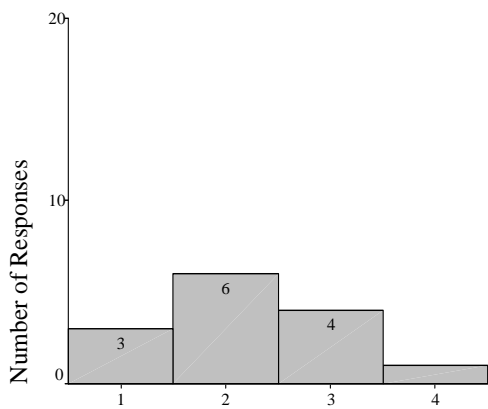
Impact Question 21 - Central Office

N = 21 Mean = 2.10 SD = .62



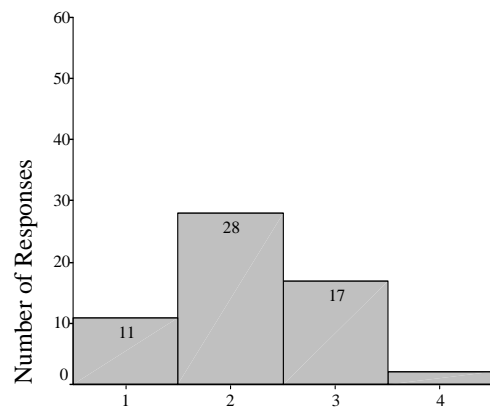
Impact Question 21 - Principals

N = 23 Mean = 2.22 SD = .85



Impact Question 21 - Teachers

N = 16 Mean = 2.21 SD = .89 NO = 2



Impact Question 21 - Aggregate

N = 60 Mean = 2.17 SD = .78 NO = 2

The central office panel reached consensus on the extent of implementation agreeing on a “systematic approach, reasonably implemented” and had little variance ($SD = .57$). Principal and teacher responses varied across the scale ($SD = 1.03$). All panel groups and the aggregate show perception of difficulty of implementation as difficult with the least variance within central office group. The teacher panel should have little variance ($SD = .42$) but three members responded, “not observed.” Central office panel members concurred on impact as moderate with the least variance ($SD = .62$). Both principal and teacher responses ranged from strong to “no” impact with the greatest variance within the teacher panel ($SD = .89$), but most responses in each group centered on moderate impact.

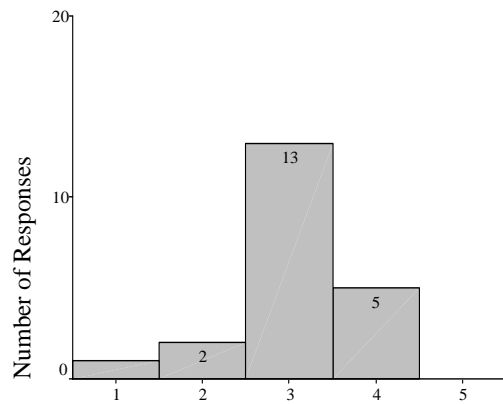
Question 22 asked, “To what extent has the district employed a system to assess the key factors that affect faculty and staff well-being, satisfaction, and motivation?” ?” Figures 4.24.a through 4.24.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 22.

Figure 4.24.a. RQ 1 Question 22: Extent of Implementation of the Baldrige Education Criteria

22. To what extent has the district employed a system to assess the key factors that affect faculty and staff well-being, satisfaction, and motivation?

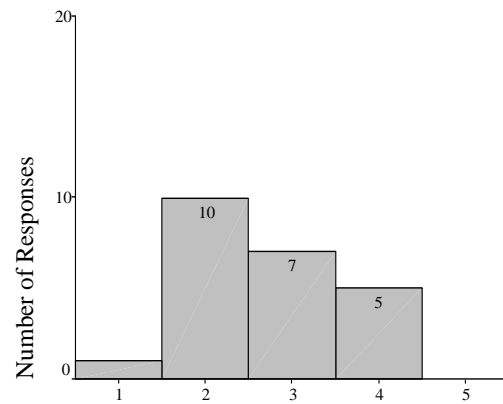
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



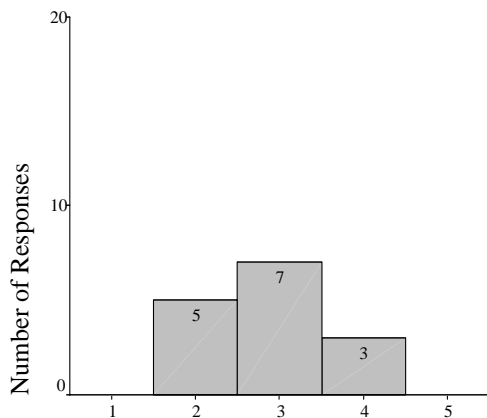
Implementation Question 22 - Central Office

N = 21 Mean = 3.05 SD = .74



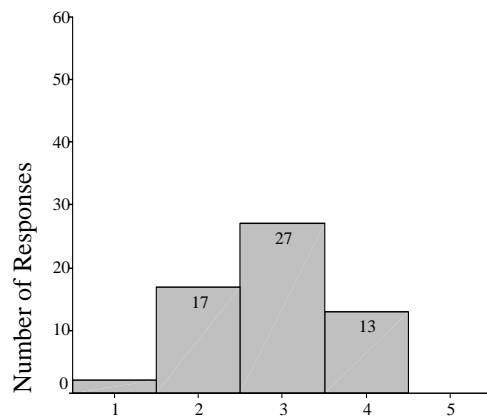
Implementation Question 22 - Principals

N = 23 Mean = 2.83 SD = 1.11



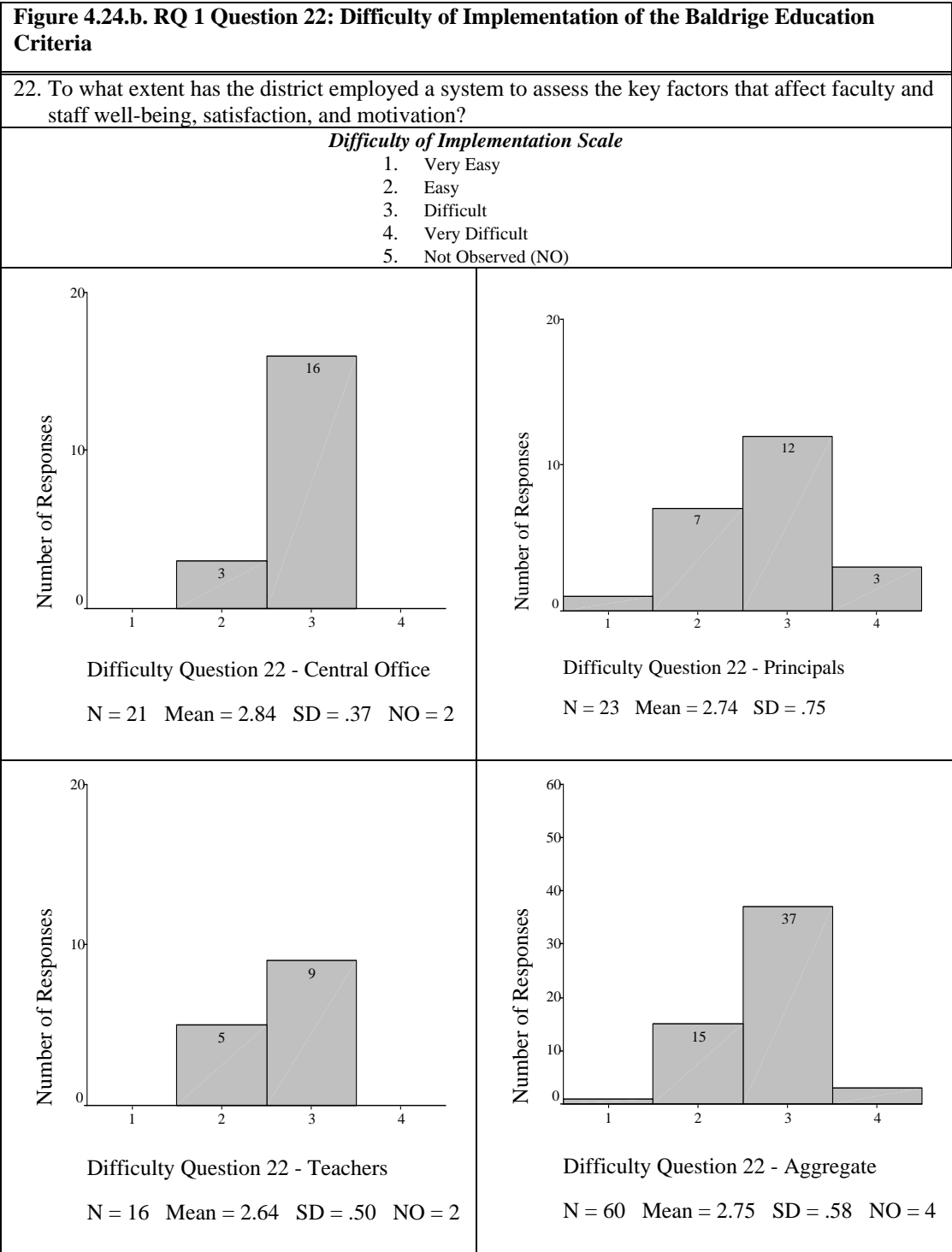
Implementation Question 22 - Teachers

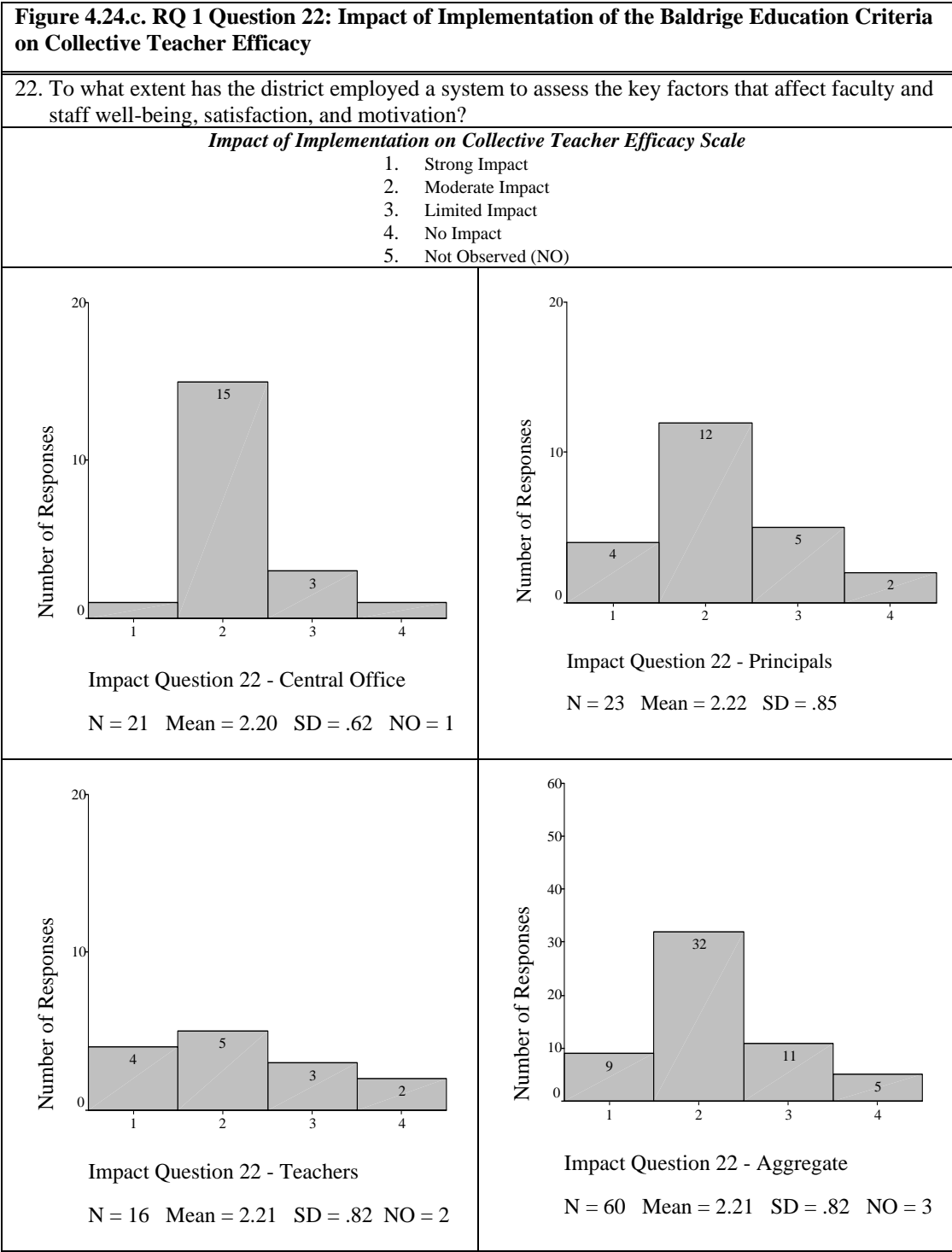
N = 16 Mean = 2.93 SD = .88 NO = 1



Implementation Question 22 - Aggregate

N = 60 Mean = 2.93 SD = .93 NO = 1





The central office panel reached consensus on the extent of implementation agreeing on scale Item 3. Principal and teacher responses clustered at scale Items 2 and 3 with the greatest variance within the principal panel ($SD = 1.11$). All panel groups and the aggregate data reveal consensus that implementation was “difficult.” Both central office and principal panels reached consensus on moderate impact on collective efficacy. Teacher responses varied from strong to “no” impact ($SD = .82$) and two “not observed” responses. The aggregate data showed 53.3% responding to moderate impact and responses across the scale ($SD = .82$).

For this Item, the central office panel reached consensus on all scales for both questions, but principal and teacher responses reflected variation on the extent of implementation and impact on collective efficacy. All panel groups and the aggregate data reflected consensus on the difficulty of implementing this Item. The central office panel perceived impact as “moderate,” but greater dispersion of responses occurred within the principal and teacher panels. The teacher panel had the greatest variance across all scales.

Process Management

The Process Management Category of the Baldrige Education Criteria examines the key aspects of the organization's process management. This Category encompasses all key processes and work units and includes learning-focused education design and delivery, key student services, and all support processes. Questions 23 through 26 address the three Items that make up this category.

Item 6.1 Education Design and Delivery Processes. Questions 23 and 24 link to Baldrige Criteria assessment Item 6.1 Education Design and Delivery Processes, which consider how the organization manages the key processes for the design and delivery of educational programs.

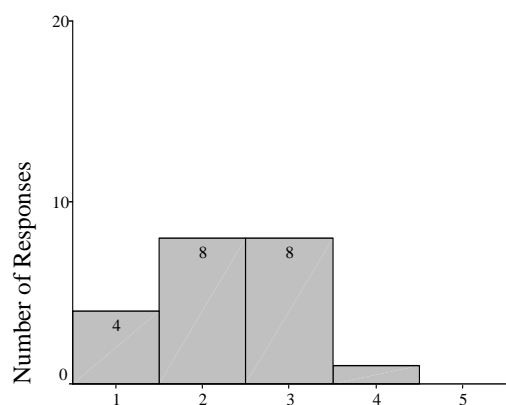
Question 23 asked, "To what extent has the district considered student differences when developing educational programs that engage students in active learning?" Figures 4.25.a through 4.25.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 23.

Figure 4.25.a. RQ 1 Question 23: Extent of Implementation of the Baldrige Education Criteria

23. To what extent has the district considered student differences when developing educational programs that engage students in active learning?

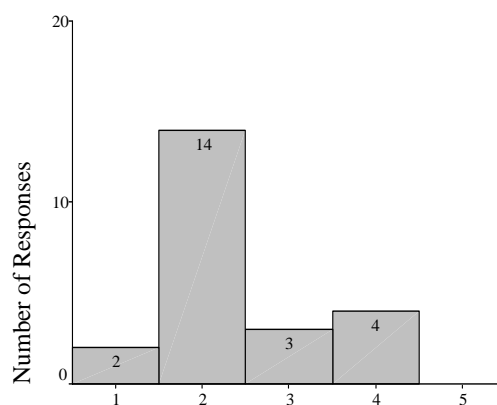
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



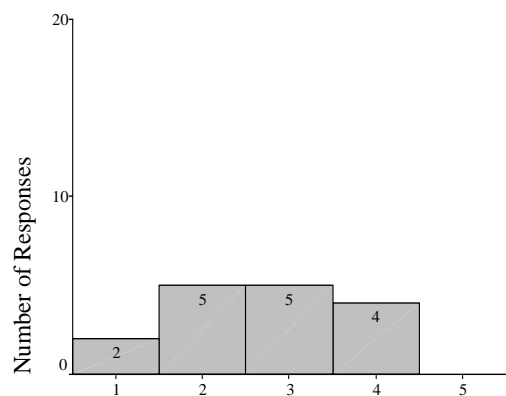
Implementation Question 23 - Central Office

N = 21 Mean = 2.29 SD = .85



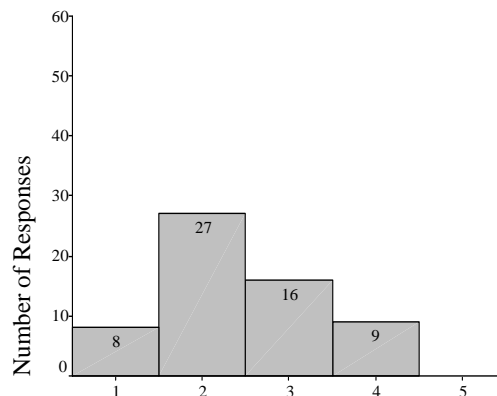
Implementation Question 23 - Principals

N = 23 Mean = 2.43 SD = .99



Implementation Question 23 - Teachers

N = 16 Mean = 2.81 SD = 1.22



Implementation Question 23 - Aggregate

N = 60 Mean = 2.48 SD = 1.02

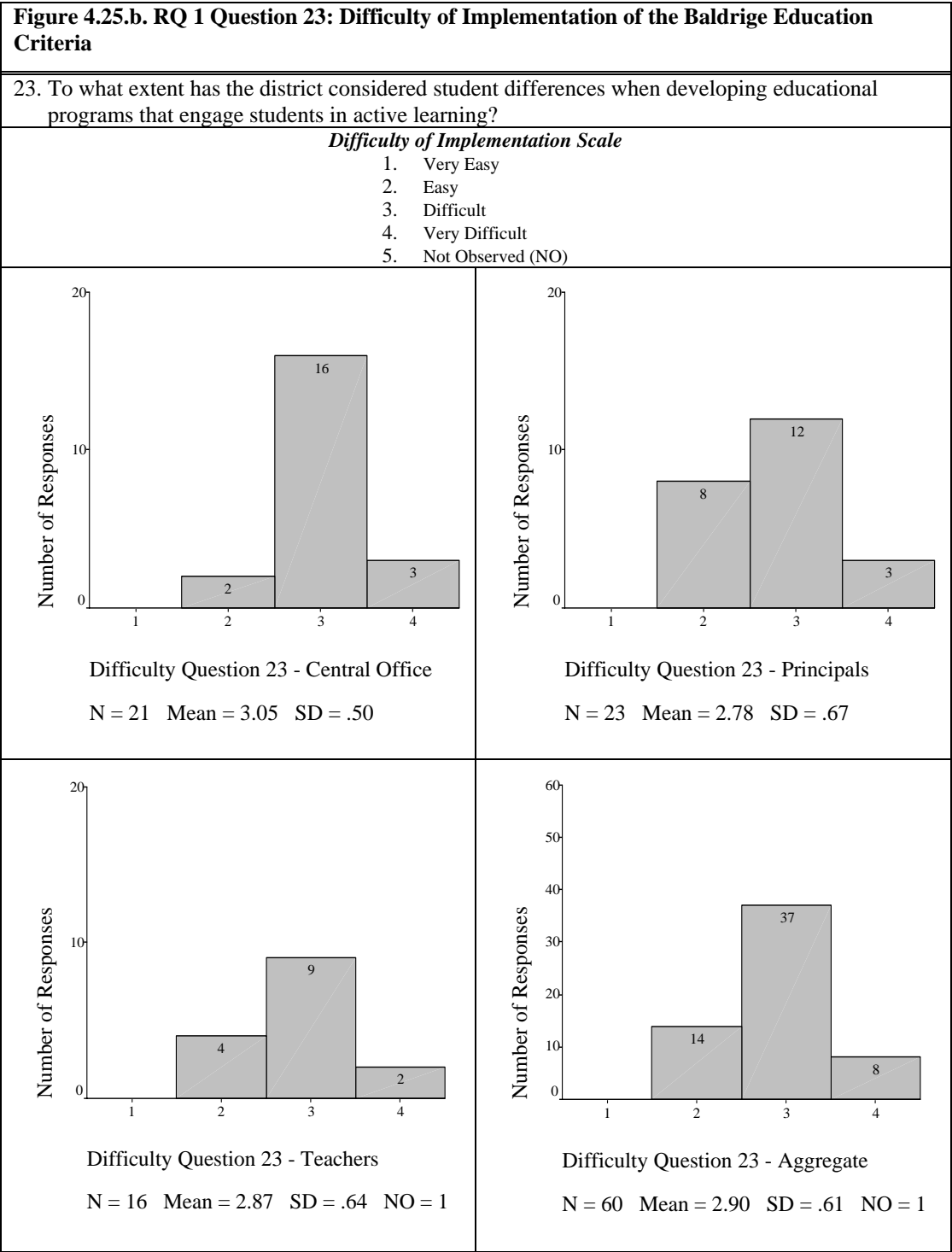
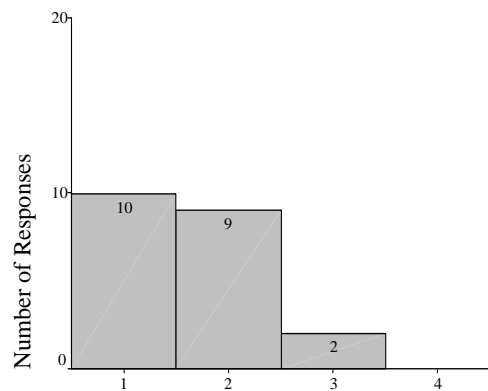


Figure 4.25.c. RQ 1 Question 23: Impact of Implementation of the Baldrige Education Criteria on Collective Teacher Efficacy

23. To what extent has the district considered student differences when developing educational programs that engage students in active learning?

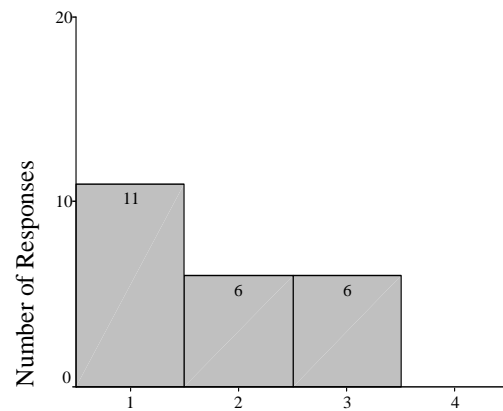
Impact of Implementation on Collective Teacher Efficacy Scale

1. Strong Impact
2. Moderate Impact
3. Limited Impact
4. No Impact
5. Not Observed (NO)



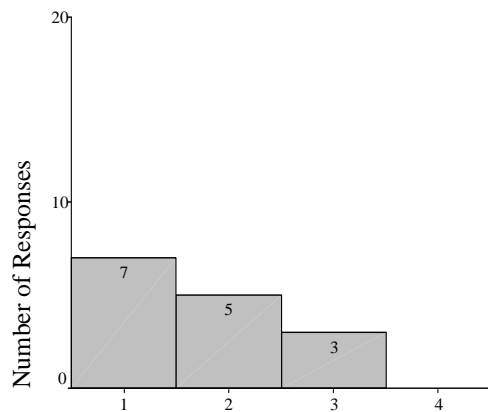
Impact Question 23 - Central Office

N = 21 Mean = 1.62 SD = .67



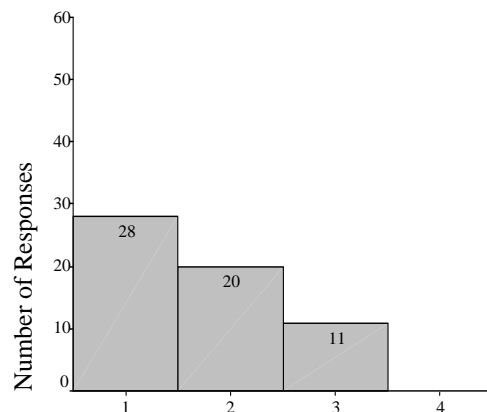
Impact Question 23 - Principals

N = 23 Mean = 1.78 SD = .85



Impact Question 23 - Teachers

N = 16 Mean = 1.73 SD = .80 NO = 1



Impact Question 23 - Aggregate

N = 60 Mean = 1.71 SD = .77 NO = 1

The principal panel reached consensus on scale Item 2 for the extent of implementation. Both the central office panel and the teacher panel responses clustered between scale Item 2 and 3. The aggregate data showed 45% of the responses at scale Item 2. The teacher panel had the greatest variance in responses ($SD = 1.22$). All panel groups and the aggregate data show consensus that implementation was difficult with the least variance within central office ($SD = .50$). None of the panel groups reached consensus, but 90.5% of central office, 73.9% of principals, 75% of teachers, and 80% of the aggregate data clustered between strong to moderate impact on collective efficacy.

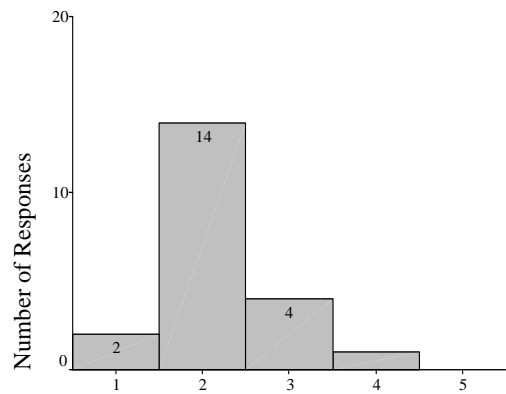
Question 24 asked, “To what extent has the district employed a process for developing educational programs aligned to district and state goals?” Figures 4.26.a through 4.26.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 24.

Figure 4.26.a. RQ1 Question 24: Extent of Implementation of the Baldrige Education Criteria

24. To what extent has the district employed a process for developing educational programs aligned to district and state goals?

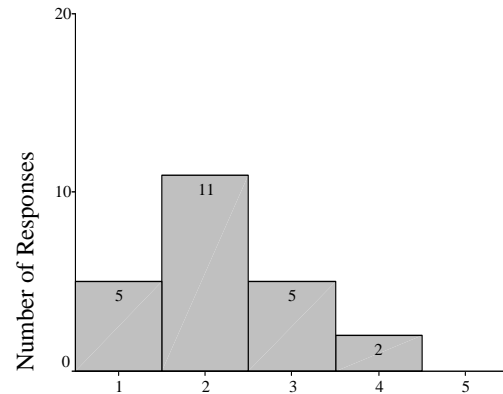
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



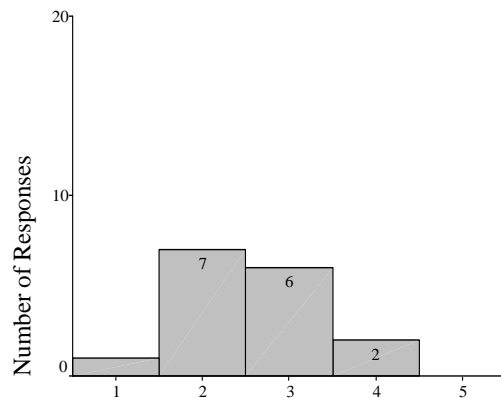
Implementation Question 24 - Central Office

N = 21 Mean = 2.19 SD = .68



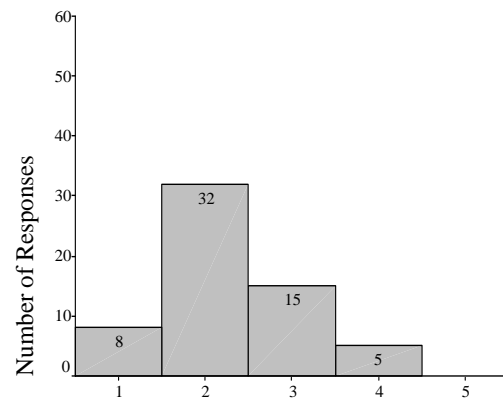
Implementation Question 24 - Principals

N = 21 Mean = 2.17 SD = .89



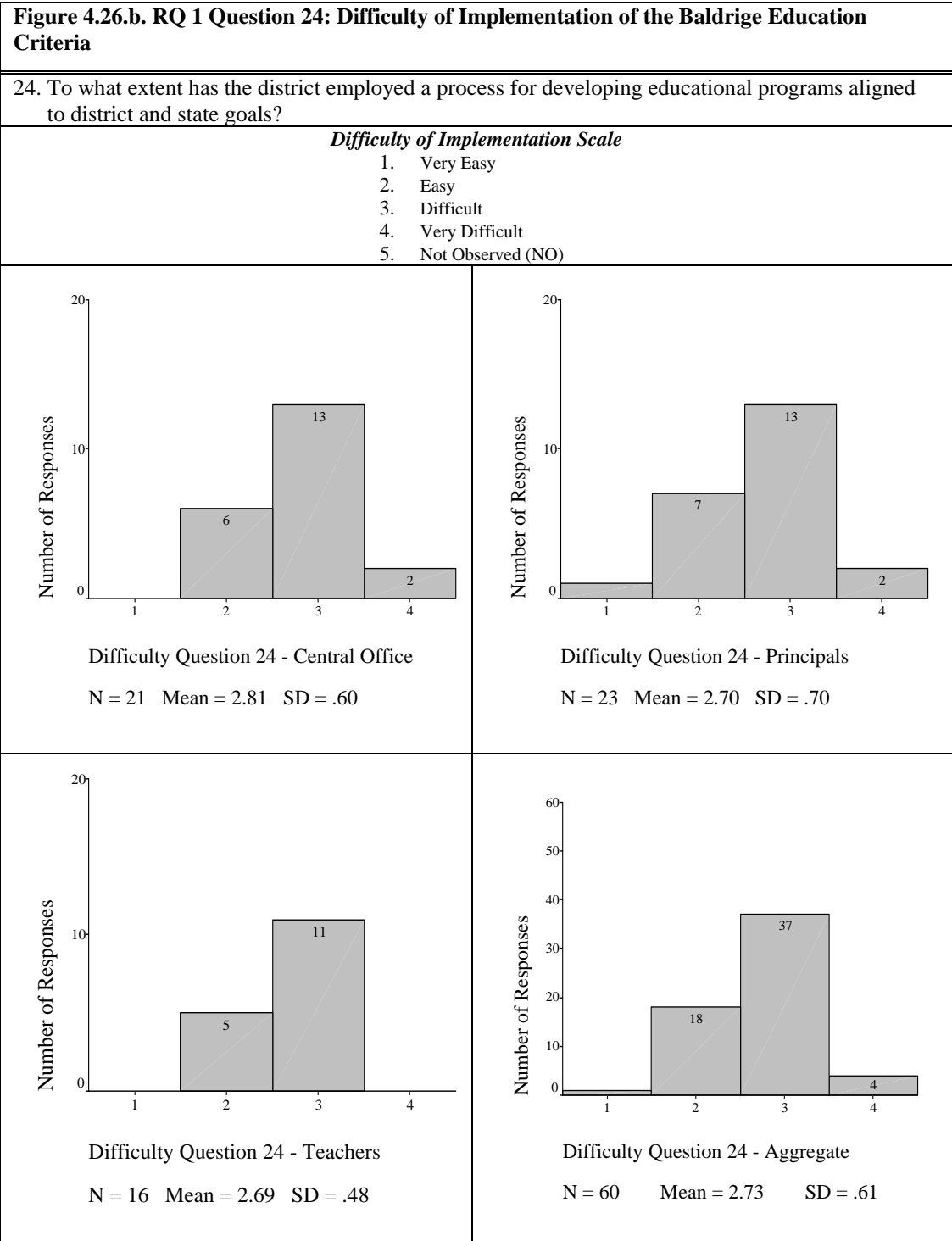
Implementation Question 24 - Teachers

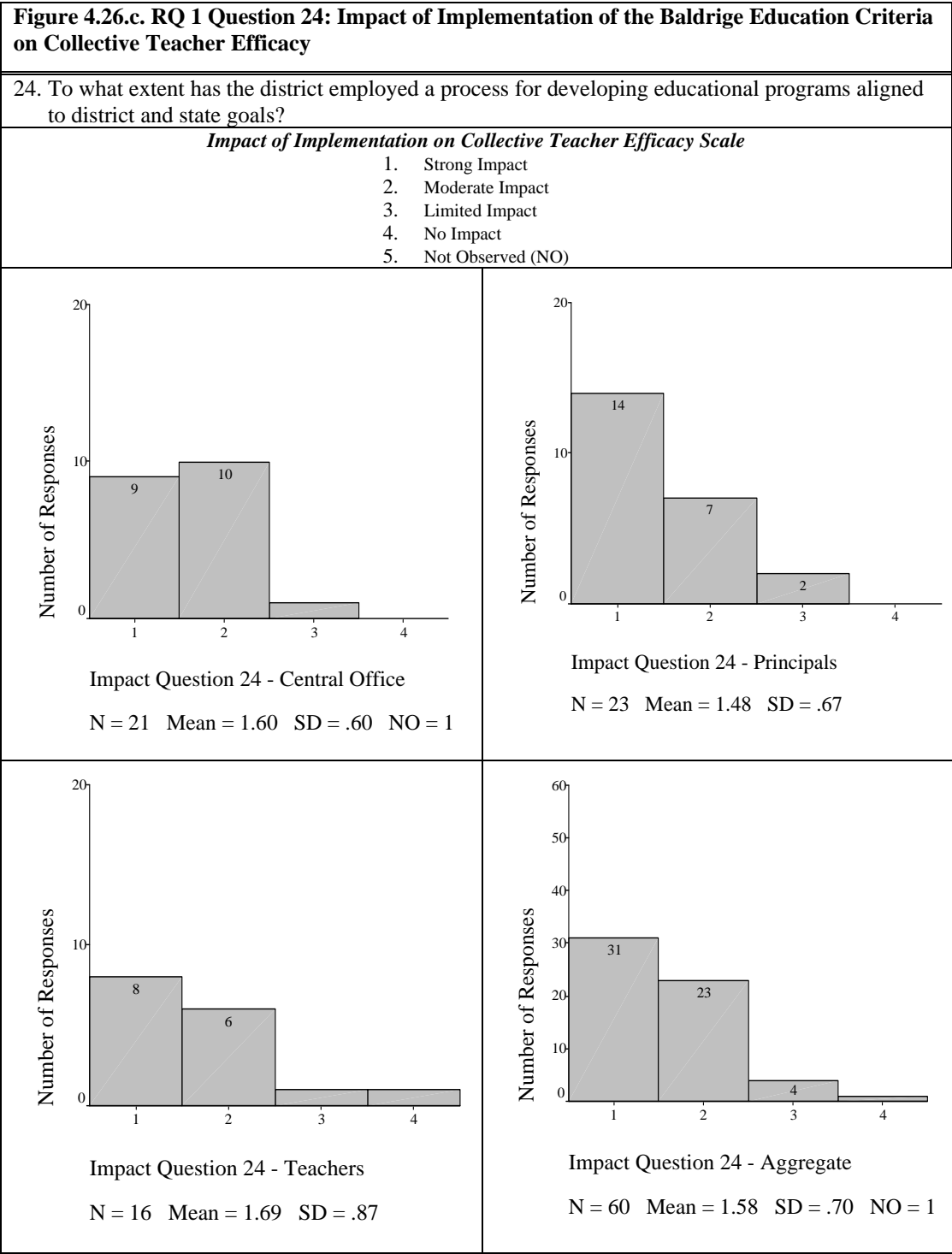
N = 16 Mean = 2.56 SD = .81



Implementation Question 24 - Aggregate

N = 60 Mean = 2.28 SD = .80





The central office panel group concurred on the extent of implementation at scale Item 2. Scale Item 2 represented the largest number of responses in the principal (47.8%) and teacher (43.8%) panels as well as the aggregate data (53.3%). Consensus within and across panel groups was reached agreeing that this Item was difficult to implement. Although none of the groups reached consensus on the impact on collective efficacy, responses for all groups clustered between strong to moderate impact. The aggregate data showed 90% of the responses at strong to moderate impact.

The data for this Item revealed that most panel members considered implementation as systematic and well-integrated. A strong consensus on the difficulty of implementation also emerged, and in spite of a lack of consensus, the data showing most responses at strong to moderate impact.

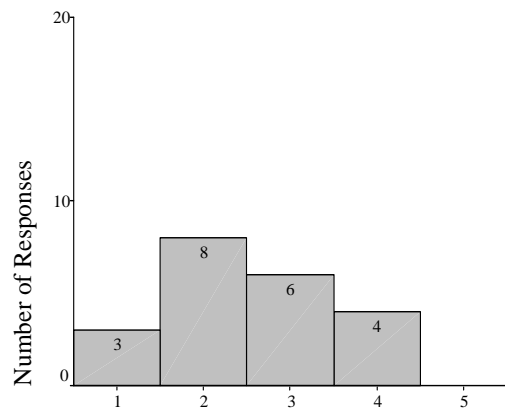
Item 6.2 Student Services. Question 25 links to Baldrige Criteria assessment Item 6.2 Student Services, which looks at how the organization manages its key student services. Question 25 asked, “To what extent has the district employed a process to measure the effectiveness of the implementation of educational programs?” Figures 4.27.a through 4.27.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 25.

Figure 4.27.a. RQ 1 Question 25: Extent of Implementation of the Baldrige Education Criteria

25. To what extent has the district employed a process to measure the effectiveness of the implementation of educational programs?

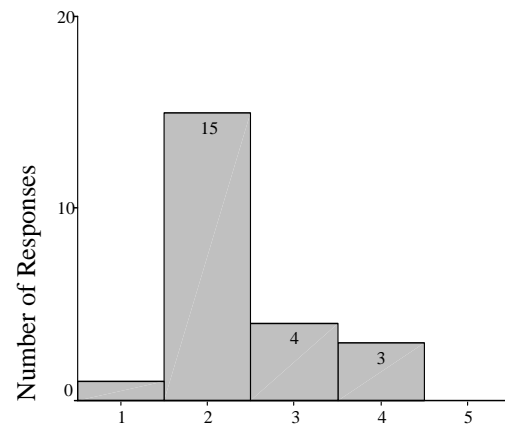
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



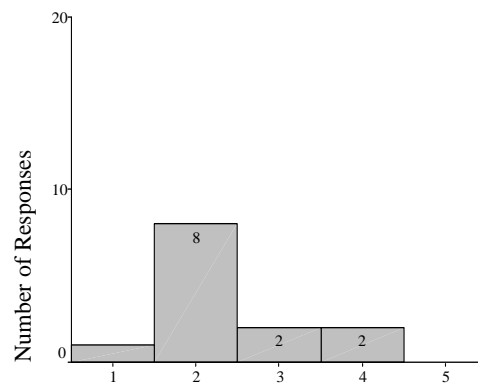
Implementation Question 25 - Central Office

N = 21 Mean = 2.57 SD = 1.08



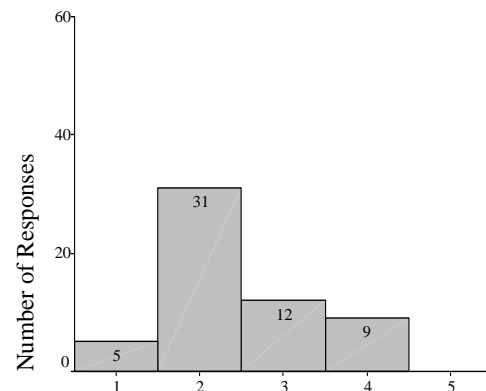
Implementation Question 25 - Principals

N = 23 Mean = 2.43 SD = .90



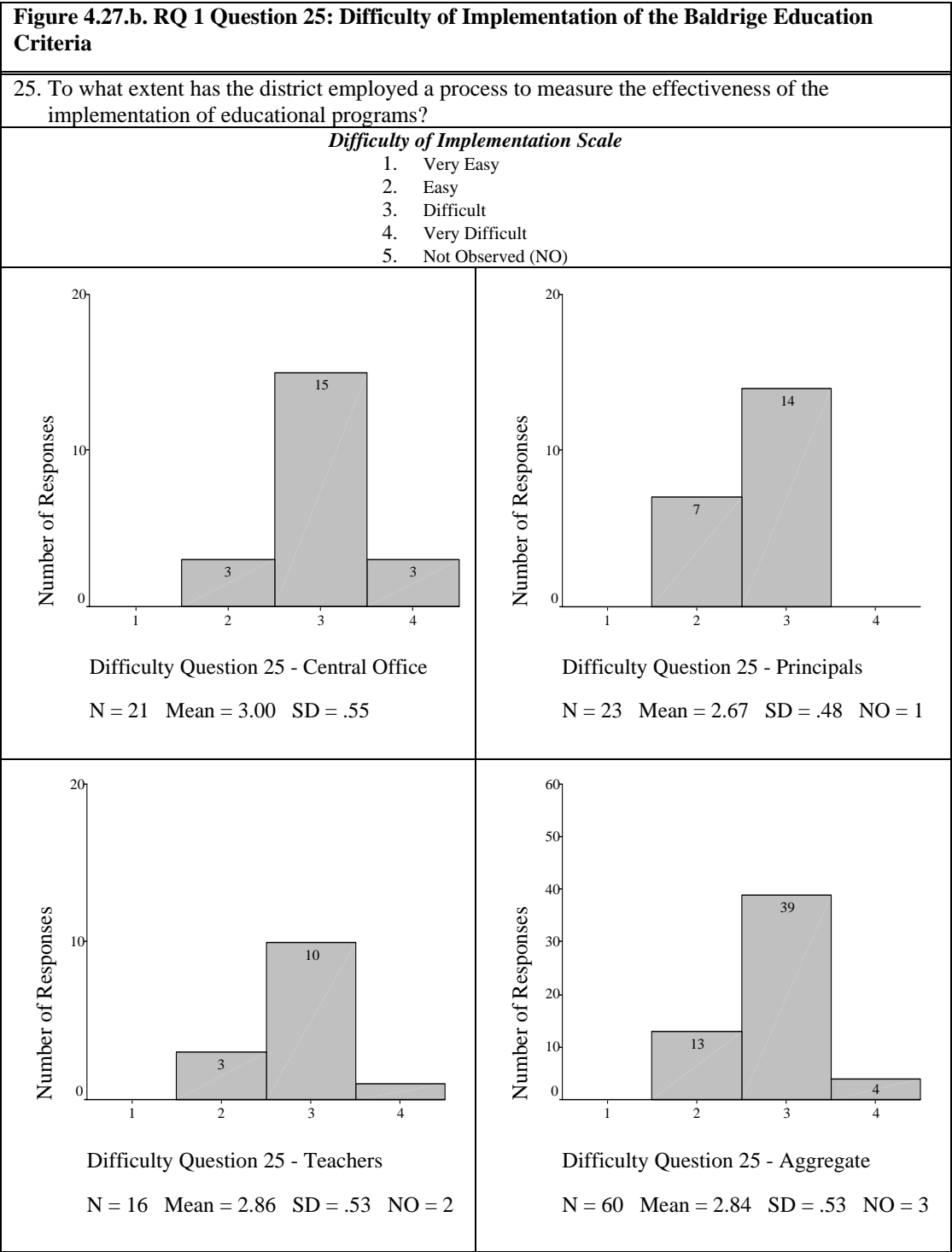
Implementation Question 25 - Teachers

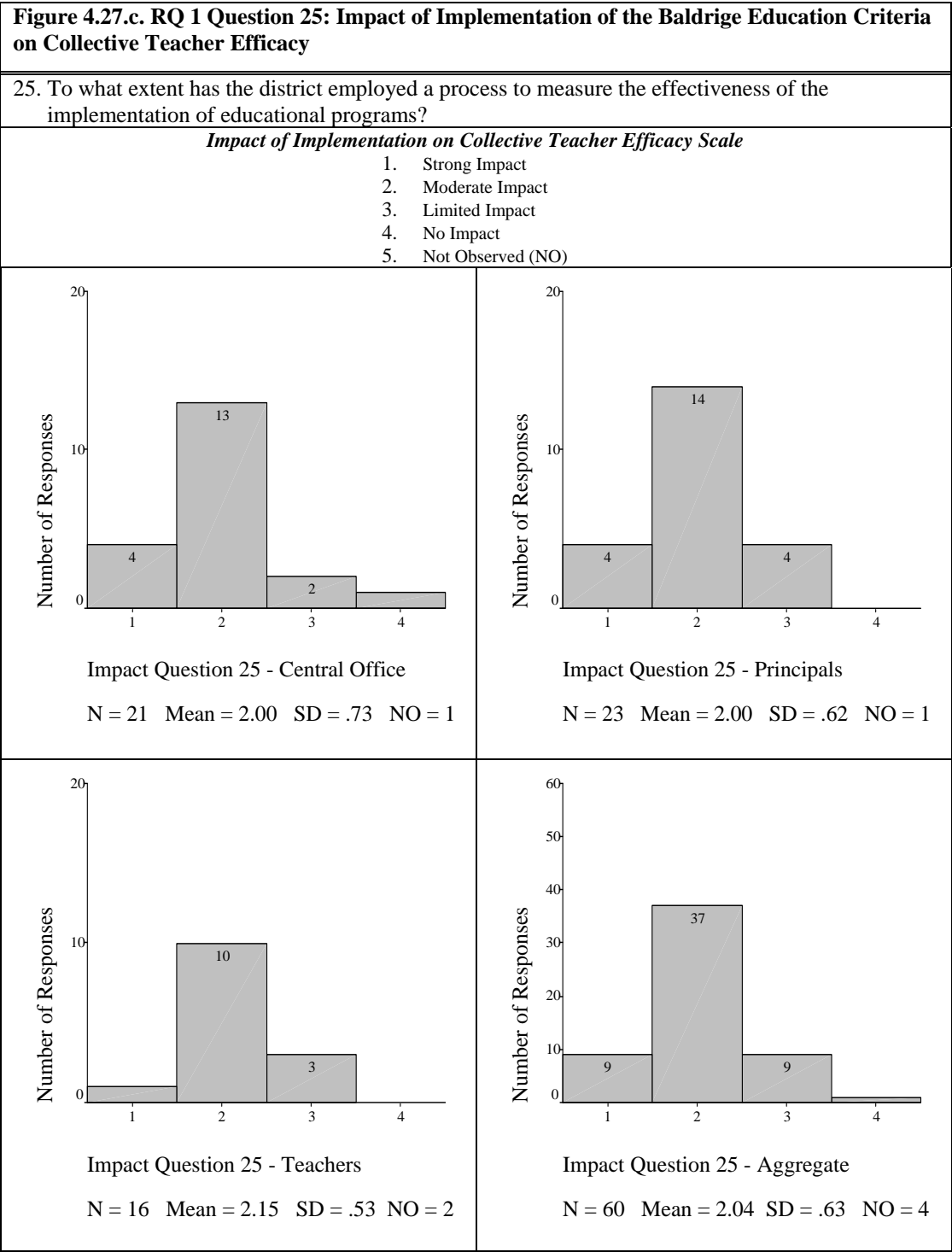
N = 16 Mean = 2.38 SD = .87 NO = 3



Implementation Question 25 - Aggregate

N = 60 Mean = 2.47 SD = .95 NO = 3





The central office responses on the extent of implementation ranged from scale Item 1 to 4 with 38% of the responses at scale Item 2. The principal panel and teacher panel reached consensus agreeing on scale Item 2. The principal panel ($SD = .90$) and the teacher panel ($SD = .87$) showed large variances with the teacher panel having three “not observed” responses. Each panel group reached consensus on the difficulty of implementation at scale Item 3, “difficult.” The panels also reached consensus regarding the moderate impact on collective efficacy but with four “not observed” responses.

The data from this question showed strong agreement on the extent of implementation. Also reflected in the data was consensus within and across panel groups on the difficulty of implementation and the impact of implementation on collective teacher efficacy. The greatest variance in responses appeared in the teacher panel.

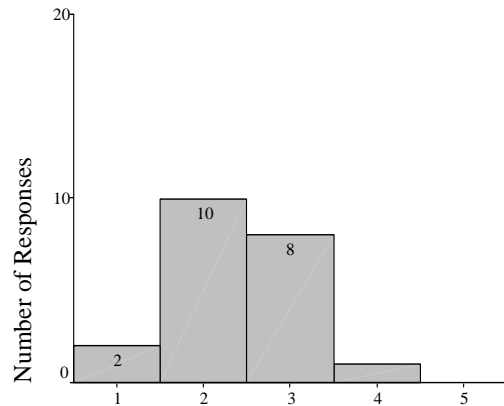
Item 6.3 Support Processes. Question 26 links to Baldrige Criteria assessment Item 6.3 Support Processes that looks at how the organization manages key processes that support daily operations as an educational organization and faculty and staff delivering services. Question 26 asked, “To what extent has the district provided support processes that ensure success of educational programs and student services?” Figures 4.28.a through 4.28.c display the aggregate district data of each panel group and the aggregate of all panel groups for question 26.

Figure 4.28.a. RQ 1 Question 26: Extent of Implementation of the Baldrige Education Criteria

26. To what extent has the district provided support processes that ensure success of educational programs and student services?

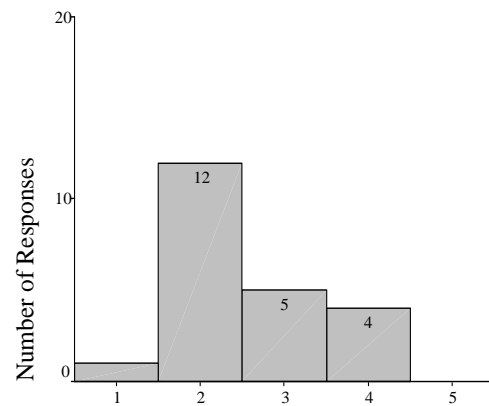
Extent of Implementation Scale

1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement
2. Systematic approach, well integrated and implemented
3. Systematic approach, reasonably implemented
4. Systematic approach, early stages of planning and implementation
5. No systematic approach
6. Not observed (NO)



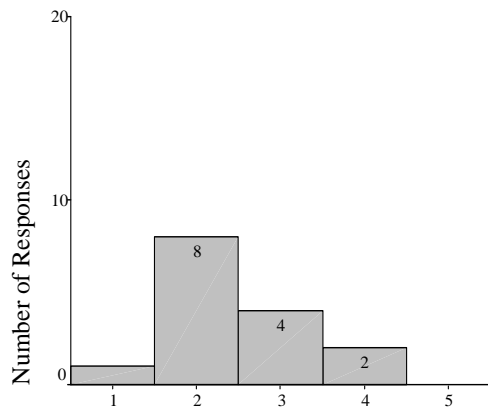
Implementation Question 26 - Central Office

N = 21 Mean = 2.38 SD = .74



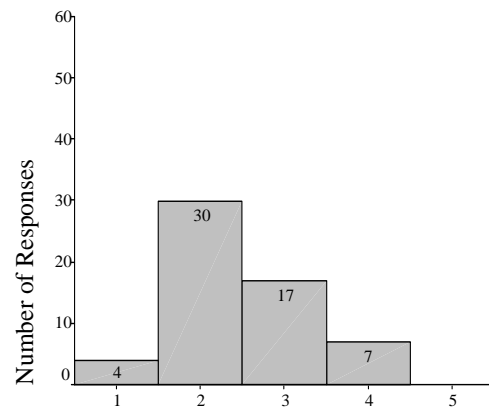
Implementation Question 26 - Principals

N = 23 Mean = 2.55 SD = .86 NO = 1



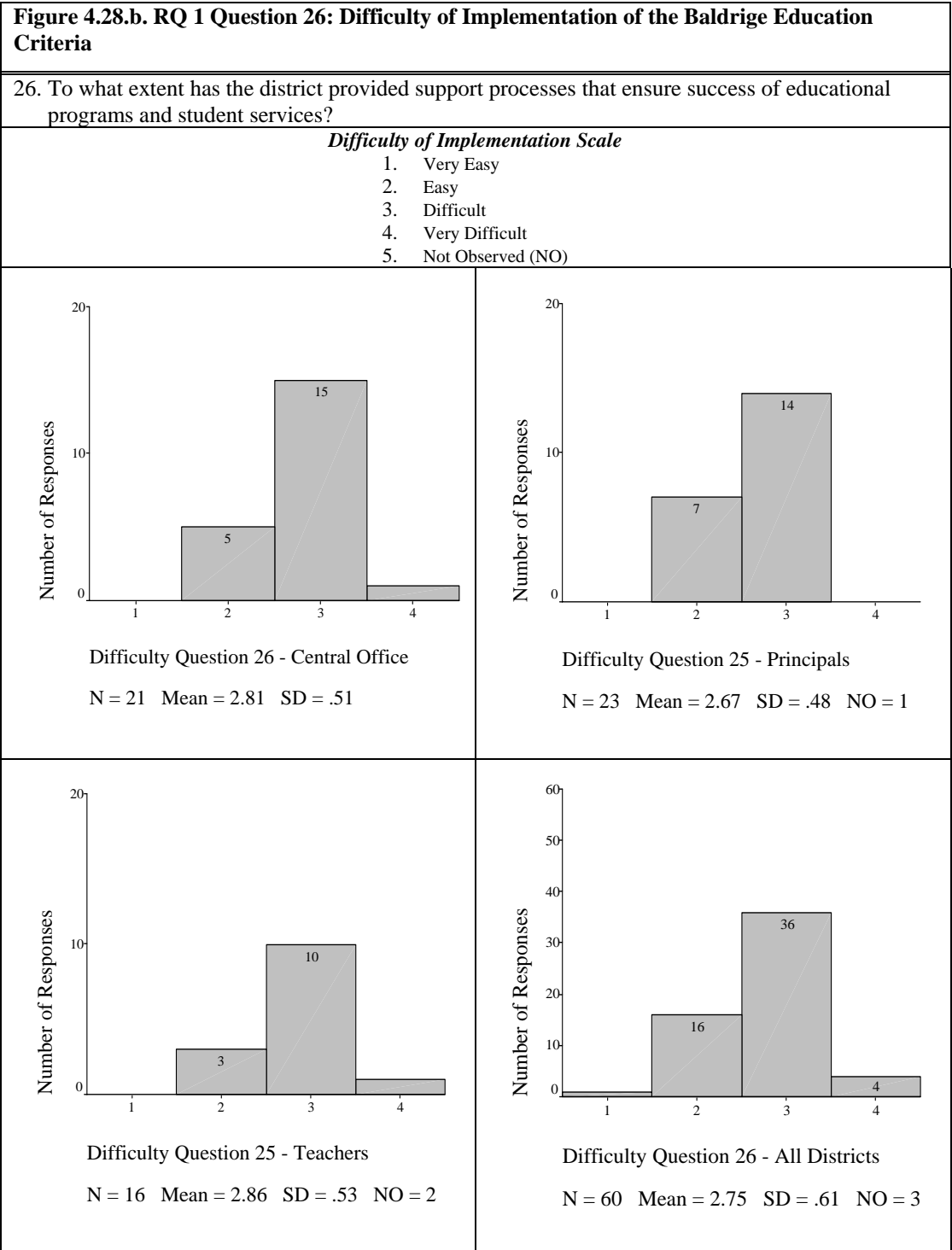
Implementation Question 26 - Teachers

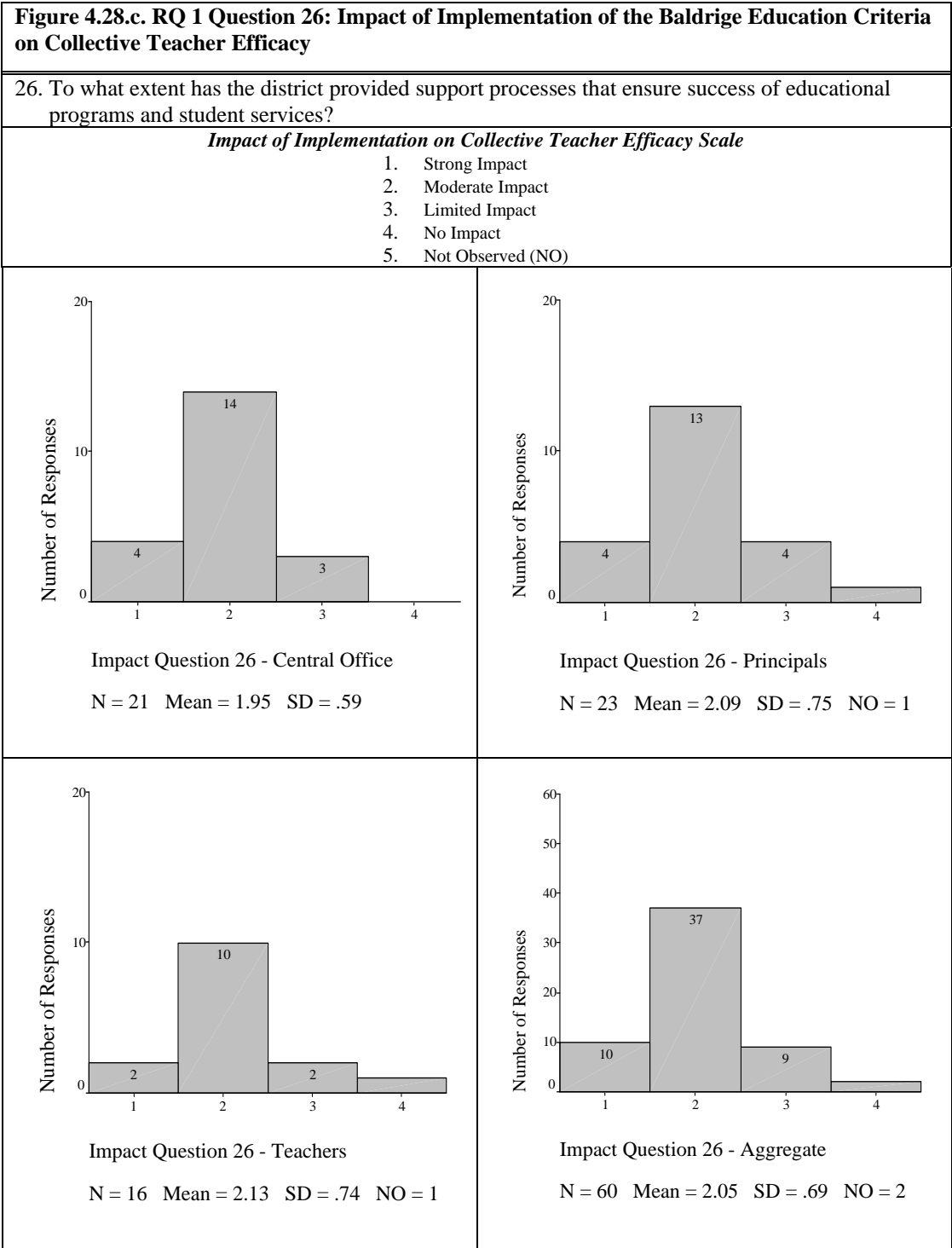
N = 16 Mean = 2.47 SD = .83 NO = 1



Implementation Question 26 - Aggregate

N = 60 Mean = 2.47 SD = .80 NO = 2





The data from this question reveal that principals and teachers agree that implementation has a systematic approach that is well integrated; however, even with consensus variation exists within the principal panel ($SD = .86$) and the teacher panel ($SD = .83$). In the central office panel, 85.5% of the responses clustered at scale Item 2 and 3. All panel groups reached consensus on the difficulty of implementation (difficult) and the impact on collective efficacy (moderate). The least variance for both scales occurred within the central office panel ($SD = .51$ and $.59$).

The data for this question again shows considerable agreement regarding implementation, difficulty of implementation, and the impact on collective teacher efficacy. Central office panel responses showed the least variation while the teacher panel exhibited the greatest variance in responses.

Summary of Research Question 1

Research question 1 asked, “What are the perceptions of central office leaders, principals, and teachers of the extent of implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy?” What this question hoped to unveil is the extent of agreement within and between the primary work groups of a school district, central office administrators, campus principals, and classroom teachers and whether the implementation of the Criteria as framework for an aligned, focused, and integrated system impacts the collective efficacy of classroom teachers.

In order to analyze the perceptions of the extent of implementation, the questionnaire for this study utilized the scoring guideline rubric for categories 1 through 6 of the Criteria. The scoring guidelines serve as a tool for Baldrige examiners to provide an award applicant feedback regarding the “approach” or how the organization addresses the Item requirements focusing on whether the method is repeatable, integrated, and consistently applied and based on reliable data with cycles for evaluation and continuous improvement. The guidelines also assess “deployment” or the extent to which implementation of the “approach” has occurred in the organization.

The scoring guideline, as a rubric, contains scoring bands that assist in describing the levels of approach and deployment. The choices for the extent of implementation Likert scale were designed to mirror the scoring bands of the guidelines. Table 4.3 presents the Baldrige Criteria scoring guidelines used by applicants to self-assess organizational performances and Baldrige examiners who score applicants in the award process.

| Table 4.3—Baldrige Criteria Approach and Deployment Scoring Guidelines | |
|---|--|
| Score | Approach-Deployment |
| 0% | <ul style="list-style-type: none"> No systematic approach is evident; information is anecdotal. |
| 10% to 20% | <ul style="list-style-type: none"> The beginning of a systematic approach to the basic requirements of the Item is evident. Major gaps exist in deployment that would inhibit progress in achieving the basic requirements of the Item. Early stages of a transition from reacting to problems to a general improvement orientation are evident. |
| 30% to 40% | <ul style="list-style-type: none"> An effective, systematic approach, responsive to the basic requirements of the Item, is evident. The approach is deployed, although some areas or work units are in early stages of deployment. The beginning of a systematic approach to evaluation and improvement of basic Item processes is evident. |
| 50% to 60% | <ul style="list-style-type: none"> An effective, systematic approach, responsive to the overall requirements of the Item and your key organizational requirements, is evident. The approach is well deployed, although deployment may vary in some areas or work units. A fact-based, systematic evaluation and improvement process is in place for improving the efficiency and effectiveness of key processes. The approach is aligned with your basic organizational needs identified in the other Criteria Categories. |
| 70% to 80% | <ul style="list-style-type: none"> An effective, systematic approach, responsive to the multiple requirements of the Item and your current and changing educational service needs, is evident. The approach is well deployed, with no significant gaps. A fact-based, systematic evaluation and improvement process and organizational learning/sharing are key management tools; there is clear evidence of refinement and improved integration as a result of organizational-level analysis and sharing. The approach is well integrated with your organizational needs identified in the other Criteria Categories. |
| 90% to 100% | <ul style="list-style-type: none"> An effective, systematic approach, fully responsive to all the requirements of the Item and all your current and changing educational service needs, is evident. The approach is fully deployed without significant weaknesses or gaps in any areas or work units. A very strong, fact-based, systematic evaluation and improvement process and extensive organizational learning/sharing are key management tools; strong refinement and integration, backed by excellent organizational-level analysis and sharing, are evident. The approach is fully integrated with your organizational needs identified in the other Criteria Categories. |

The scoring bands range from 0% where there is no systematic approach to 90% to 100% where the approach is effective, systematic, with fact-based cycles of improvement and fully integrated and implemented. Many high-performing organizations score in the 50% - 60% range of the guidelines, which describe an organization that has a systematic approach, employs fact-based evaluation and improvement processes aligned with the needs of the organization. The scoring bands

actually represent a continuum of approach and deployment, and each organization differs in the level of implementation for each Item across the Criteria.

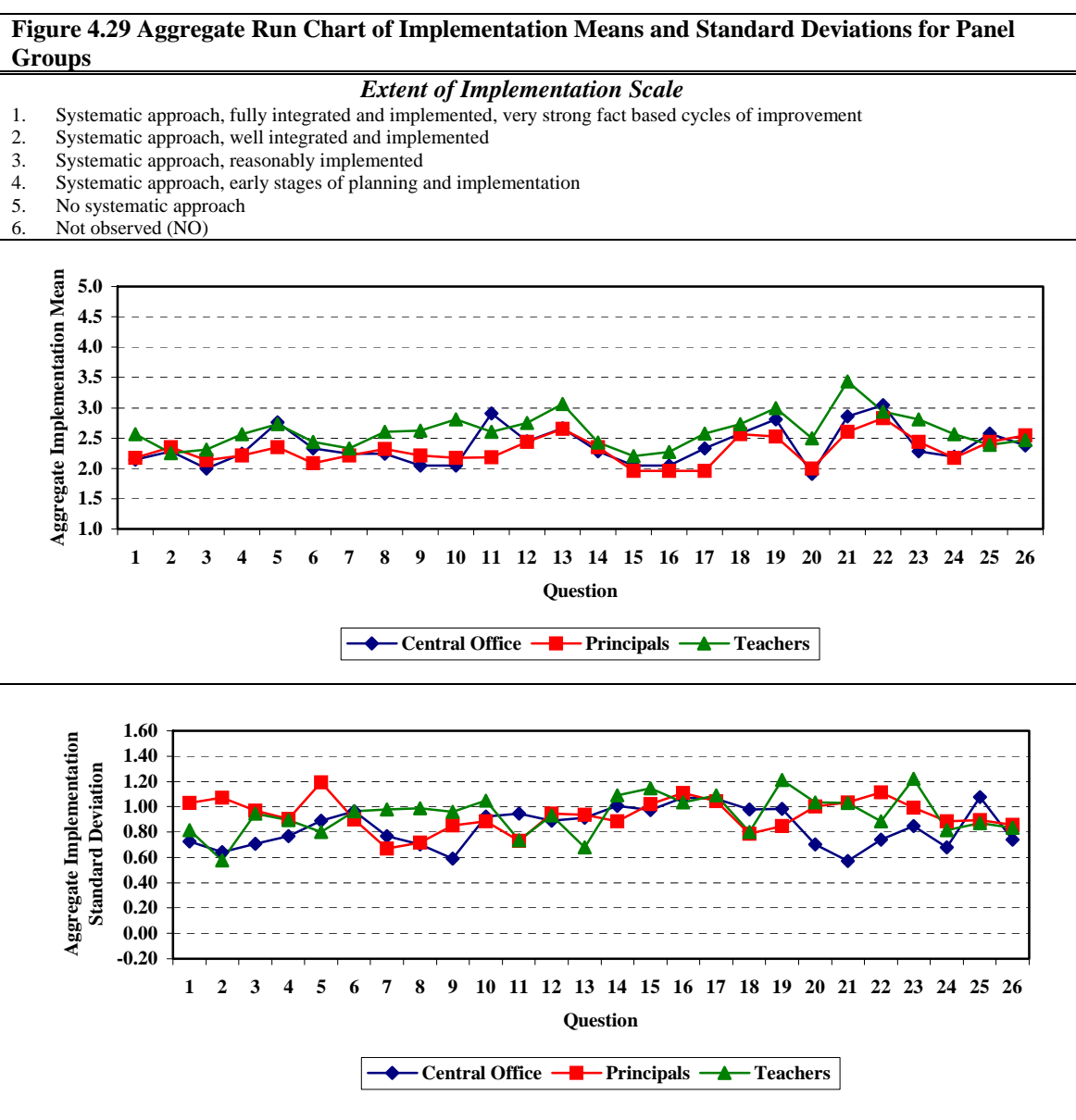
As a result of the uniqueness of each district in their approach to the implementation of the Criteria, each district will not be in the same place along the continuum for the Items of the Criteria. For example, one organization may begin implementation by focusing primarily on the implementation of an aligned and systematic information management system reflected in Items 4.1 and 4.2. Another district might begin with aligning learning-centered processes, which includes professional development and curriculum development in Item 6.1. This factor accentuates the results and analysis of this study because, in spite of inherent differences, considerable commonality surfaced in the findings.

Several recurring themes emerged across the Categories and Items and include:

1. The central office panel reached consensus more often across all scales (extent of implementation, difficulty of implementation, and impact on collective teacher efficacy).
2. Variance in responses within panel groups occurred more often in the principal and teacher panels.
3. The central office and principal panels perceive higher levels of implementation.
4. As the level of implementation increased, the perception of the impact of implementation on collective efficacy also increased with less variance and greater consensus among groups.

5. Although implementation may be difficult, it is achieved, and has a strong to moderate impact on collective teacher efficacy. Figures 4.29 through 4.32 illustrate the means and standard deviations of the aggregate data for each of the scales and for all of the questions.

Figure 4.29 displays the data for the extent of implementation for each of the panel groups.



The run chart more clearly shows the alignment of the central office panel and principal groups and the perception of higher levels of implementation. Consensus of all panel groups is evident in question 2, communication of core values by senior leaders; question 7, planning process that involve all stakeholders; question 14, collection and integration of data to support action plans and processes; question 22, processes to assess employee satisfaction; question 25, addressing and measuring processes and educational programs; and question 26, support process that ensure success of educational programs. In addition, most of the questions reveal that the panels perceive that the management processes represented by each question and Item has a systematic approach, well-integrated and reasonably implemented.

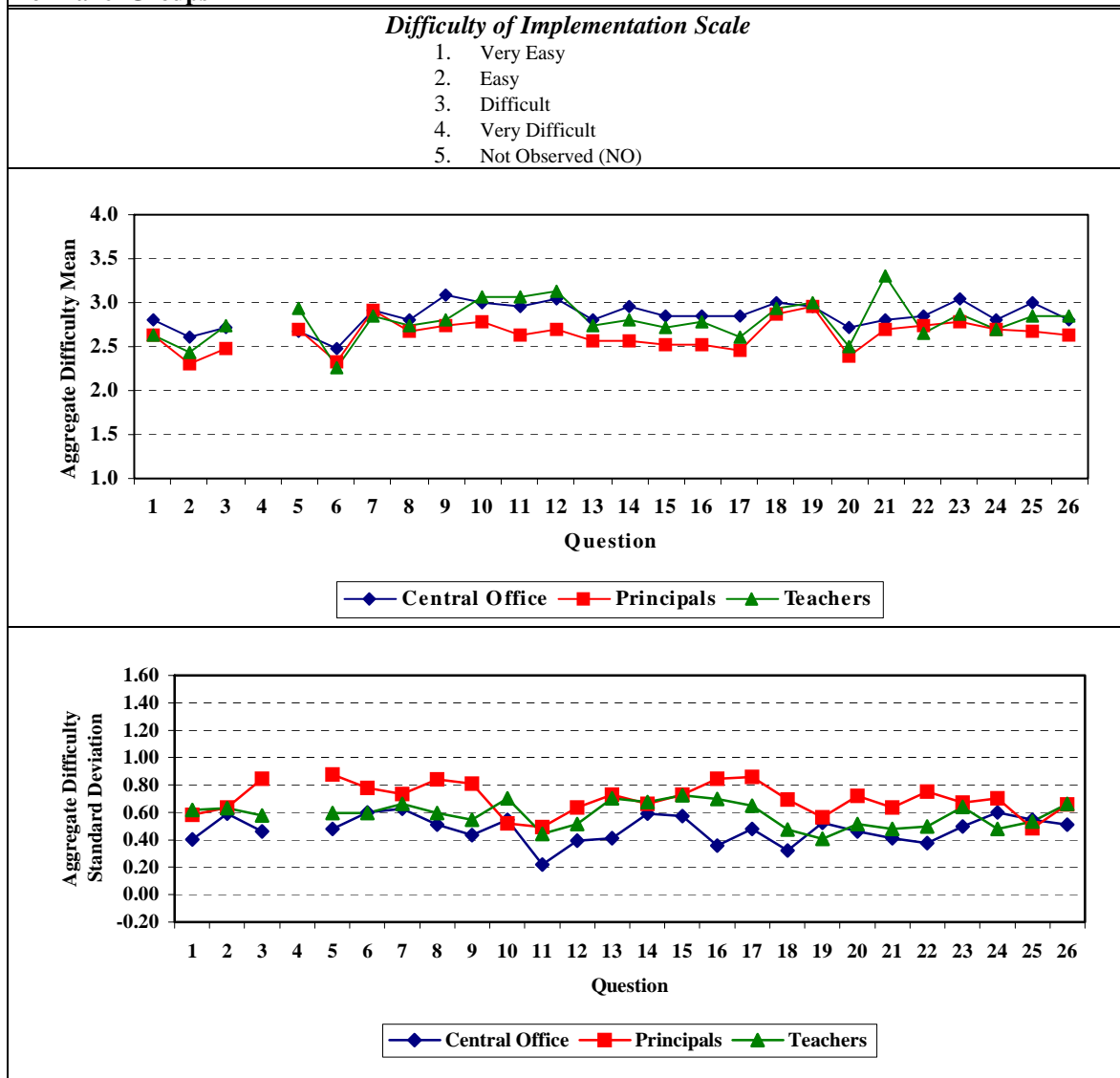
The teacher panel results showed perceptions of lower levels of implementation for question 7 related to the extent that senior leaders facilitate a planning process that involves all stakeholders and question 21 that addresses workplace health, safety, and ergonomics. The differences in teacher perceptions may be indicative of the level of involvement and awareness of teachers in district level functions and be an opportunity

for growth in extending involvement of teachers, communicating district actions, and monitoring levels of deployment.

The chart also shows the variance in each of the panel groups across the questions, ranging from $SD = .58$ to $SD = 1.22$ indicating that while consensus occurs across groups and often within a group, variance in individual responses exists. The reader should also be aware that the standard deviation sometimes reflects outlier responses within each panel group causing a higher standard deviation in spite of a majority of responses for a single item. The degree of variance may suggest gaps in deployment, which is the extent and consistency of implementation of processes across an organization.

The same level of variance between the panels occurred at questions 6, 12, 16, 17, 21, and 26, whose means also reveal strong consensus between the groups on the extent of implementation. Figure 4.30 displays the data for the difficulty of implementation.

Figure 4.30 Aggregate Run Chart of Difficulty of Implementation Means and Standard Deviations for Panel Groups



The aggregate means run chart above illustrates the strong agreement of all panel groups regarding the level of difficulty of implementation notably questions 7, 8, 18, and 24 with means between 2.73 and 2.93 indicating perceptions that implementation of these areas is difficult. Questions 7 and 8 address strategy development; 18 considers how the district promotes cooperation, initiative, innovation, and organizational culture;

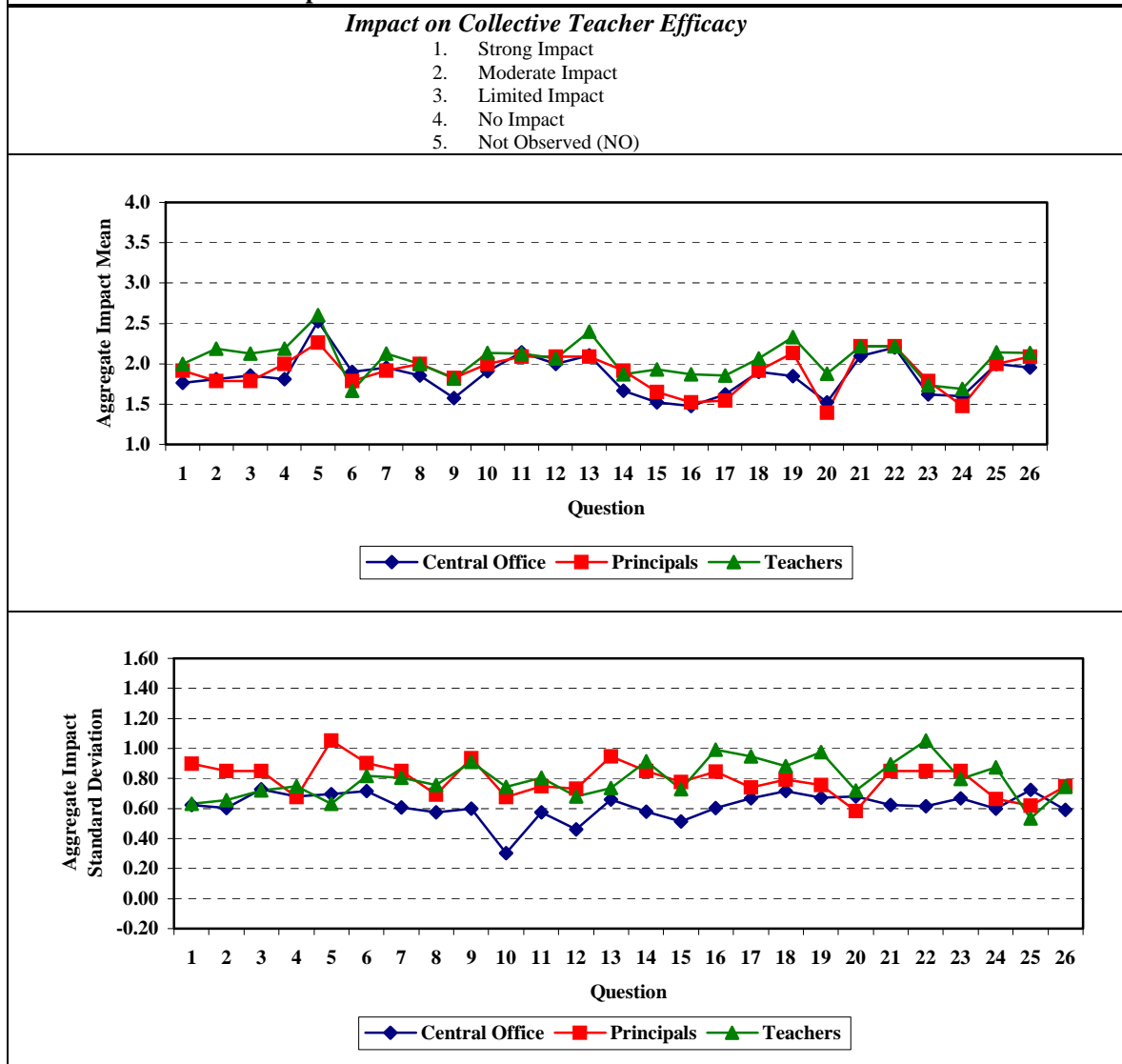
and, 24 related to district processes for developing educational programs aligned to district and state goals.

One outlier occurred at question 21, the extent to which the district has ensured workplace health, safety, and ergonomics, where the teacher panel group perceived implementation as more difficult. Teachers also perceived that the extent of implementation was less for this area suggesting that either the organization has not addressed this area or that teachers may not see the efforts of administrators to address workplace health, safety, and ergonomics.

The level of variance in each group ($SD = .43$ to $SD = .70$) indicates a higher degree of within group consensus on the level of difficulty across all questions, especially question 2, 14, and 25. Each of these questions also show close agreement on the level of difficulty between the panel groups. The greatest variance between groups occurred at question 16, the extent the district has disaggregated and analyzed data to modify and improve instruction to enhance student achievement. While the panels show agreement on the level of difficulty of implementation of this area, the degree of variance within each group reveals that central office has the greatest within group consensus and teachers and principals have more divergent perceptions within the respective panel groups.

Central office has the least variance at a fairly consistent level across the items, which may be the result of the extent to which senior leadership set direction recognizing the difficulty in deploying an integrated management system throughout the organization. Figure 4.31 shows the data for the impact of implementation on collective teacher efficacy.

Figure 4.31 Aggregate Run Chart of Impact on Collective Teacher Efficacy Means and Standard Deviations for Panel Groups

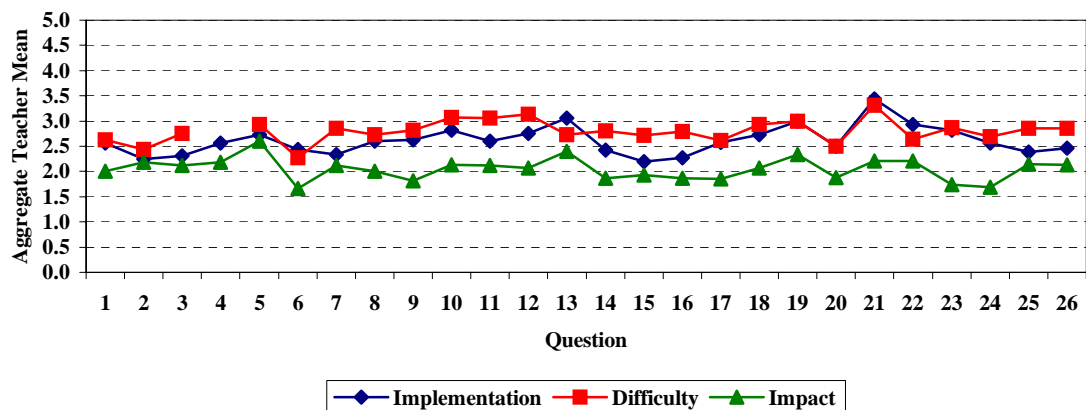
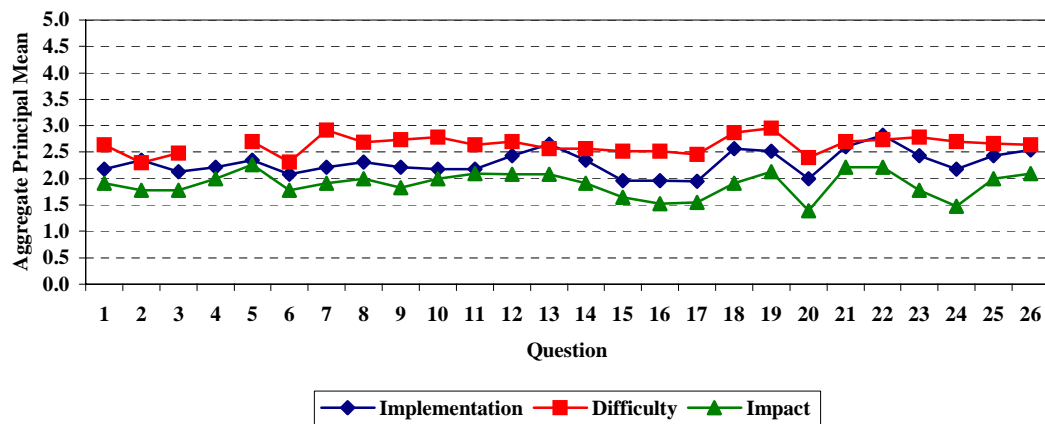
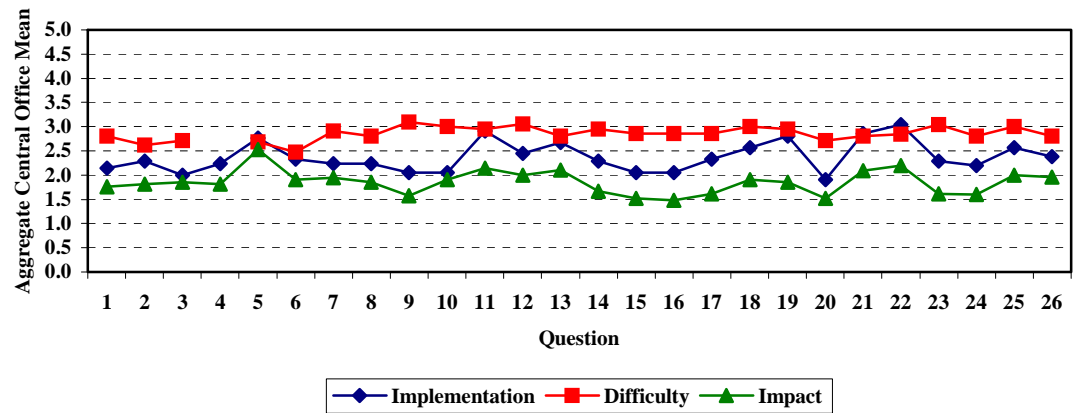


This chart visually demonstrates the level of agreement on the strong to moderate impact of implementation on collective teacher efficacy. The greatest agreement between panels on the impact of implementation on collective teacher efficacy occurs at questions 8, 11, 12, 21, 22, 23, and 26. The chart also reveals two areas (questions 2, 3, 15, 16, and 17) where principal and central office perceive impact stronger than teachers.

While the differences in perceptions are minimal, it may be an indicator of the extent of deployment of the areas throughout all levels of the organization. The standard deviations for the aggregate of each panel group show the least variance consistently in the central office panel. The greatest difference between central office and principals and teachers occurs at question 10, the extent that district leaders have identified performance measures for tracking the progress of action plans. The difference between the groups raises the question about the extent of communication and the level of deployment of performance indicators for action plans.

Although little difference occurs between the groups, the fluctuations across the questions closely align to the run chart in Figure 4.29 with those questions with the greatest degree of implementation showing the strongest impact in collective efficacy and those less implemented having impact but to a slightly lesser degree. This alignment demonstrates that regardless of the difficulty, these districts continue to deploy the management practices reflected in the Criteria. Figure 4.32 shows the mean for each panel group for each of the scales.

Figure 4.32 Aggregate Run Chart of Means for Implementation, Difficulty of Implementation, and Impact on Collective Teacher Efficacy for Panel Groups



For each of the panel groups, the mean remains fairly constant for all questions. All of the panels perceived strong to moderate impact closely aligned to implementation that is systematic and integrated or linked with other components of the management system. The level of difficulty is also constant across the questions for all panels suggesting that in spite of the difficulty in deploying these practices, it is accomplished. These results seem to validate the Criteria framework, which requires commitment of senior leaders who communicate the organization's vision, values, and expectations through leadership systems that guide the development of effective systematic approaches, which are integrated and consistently applied.

Table 4.4 provides another view of the extent of implementation data by ranking in ascending order the means and standard deviations. The ranking of the means and standard deviations allows an analysis of which areas have the greatest level of implementation, are the easiest to implement, and have the strongest impact on collective teacher efficacy. Examination of the data, for example reveals that Item 1.1 represented by question 1 is well implemented but is difficult to implement, and has strong impact on collective teacher efficacy.

| Table 4.4 — Ranked Aggregate Means and Standard Deviations for Extent of Implementation | | | | | |
|--|-----------------------|-----------|---|-----------------------|-----------|
| Aggregate Implementation Means | | | Aggregate Implementation Standard Deviations | | |
| Category.Item – Ques | Implementation | SD | Category.Item – Ques | Implementation | SD |
| 4.1 - 15 | 2.05 | 1.02 | 2.1 - 7 | 2.25 | 0.78 |
| 4.1 - 16 | 2.07 | 1.06 | 2.1 - 8 | 2.36 | 0.79 |
| 5.2 - 20 | 2.10 | 0.93 | 6.1 - 24 | 2.28 | 0.80 |
| 1.1 - 3 | 2.13 | 0.87 | 6.2 - 26 | 2.47 | 0.80 |
| 2.1 - 7 | 2.25 | 0.78 | 1.1 - 2 | 2.30 | 0.81 |
| 4.2 - 17 | 2.25 | 1.07 | 2.2 - 9 | 2.27 | 0.82 |
| 1.1 - 1 | 2.27 | 0.88 | 1.2 - 4 | 2.32 | 0.85 |
| 1.2 - 6 | 2.27 | 0.94 | 5.1 - 18 | 2.61 | 0.85 |
| 2.2 - 9 | 2.27 | 0.82 | 3.1 - 11 | 2.55 | 0.86 |
| 6.1 - 24 | 2.28 | 0.80 | 1.1 - 3 | 2.13 | 0.87 |
| 1.1 - 2 | 2.30 | 0.81 | 3.2 - 13 | 2.77 | 0.87 |
| 2.2 - 10 | 2.30 | 0.98 | 1.1 - 1 | 2.27 | 0.88 |
| 1.2 - 4 | 2.32 | 0.85 | 3.2 - 12 | 2.53 | 0.92 |
| 4.1 - 14 | 2.34 | 0.97 | 5.2 - 20 | 2.10 | 0.93 |
| 2.1 - 8 | 2.36 | 0.79 | 5.3 - 22 | 2.93 | 0.93 |
| 6.2 - 25 | 2.47 | 0.95 | 1.2 - 6 | 2.27 | 0.94 |
| 6.2 - 26 | 2.47 | 0.80 | 5.3 - 21 | 2.92 | 0.94 |
| 6.1 - 23 | 2.48 | 1.02 | 6.2 - 25 | 2.47 | 0.95 |
| 3.2 - 12 | 2.53 | 0.92 | 4.1 - 14 | 2.34 | 0.97 |
| 3.1 - 11 | 2.55 | 0.86 | 2.2 - 10 | 2.30 | 0.98 |
| 1.2 - 5 | 2.59 | 1.00 | 1.2 - 5 | 2.59 | 1.00 |
| 5.1 - 18 | 2.61 | 0.85 | 5.1 - 19 | 2.75 | 1.00 |
| 5.1 - 19 | 2.75 | 1.00 | 4.1 - 15 | 2.05 | 1.02 |
| 3.2 - 13 | 2.77 | 0.87 | 6.1 - 23 | 2.48 | 1.02 |
| 5.3 - 21 | 2.92 | 0.94 | 4.1 - 16 | 2.07 | 1.06 |
| 5.3 - 22 | 2.93 | 0.93 | 4.2 - 17 | 2.25 | 1.07 |

The results reveal that most of the Criteria Items are well-integrated into the organization with a systemic approach to drive deployment. Questions related to Item 4.1, Information and Analysis, and 4.2, Information Management, all rank fairly high suggesting that the study districts value the use of data and information to make fact-based decisions and have systematic processes for data review and improvement with access to the data at all levels of the organization.

Also high in the ranking are questions related to Item 1.1 and 1.2 linked to leadership, specifically, how senior leaders establish core values and expectations, the extent to which senior leaders review performance data, and how they ensure ethical practices. The level of implementation reflected in the responses indicates that the leaders in these organizations are personally involved in performance improvement and ensure that organizational values provide direction to achieve the mission, vision, and goals. Item 5.2, Education, Training, and Development, showed higher levels of implementation, implying that the study districts build capacity linking professional development to district goals and objective and, most important, student achievement.

The Items showing lower levels of deployment include questions related to 5.1 on Work Systems, and 5.3, Faculty and Staff Well-Being and Satisfaction, but the results still indicate a systematic approach with processes in place to address these areas. The results of this ranking confirm the systems perspective for managing performance excellence reflected in the Baldrige framework. Senior leaders set and focus on strategic directions using key measures to link strategies with processes building capacity through training and development to achieve performance results. In the framework, leadership is a key driver supported by strong fact-based data management systems and broad-based knowledge sharing. All of the Items are important; however, rarely can the others be successfully deployed without effective leadership and the monitoring of critical performance measures. Therefore, staff well-being and satisfaction as well as processes for motivating staff, while important and evident in high performing organizations, may not show up as the strongest areas implemented in organizations still working toward fully deploying approaches with few, if any, gaps.

Table 4.5 displays the difficulty of implementation data by ranking in ascending order the means and standard deviations.

| Table 4.5 — Ranked Aggregate Means and Standard Deviations for the Difficulty of Implementation | | | | | |
|--|-------------------|-----------|---|-------------------|-----------|
| Aggregate Difficulty Means | | | Aggregate Difficulty Standard Deviations | | |
| Category.Item – Ques | Difficulty | SD | Category.Item – Ques | Difficulty | SD |
| 1.2 - 6 | 2.36 | 0.67 | 3.1 - 11 | 2.86 | 0.43 |
| 1.1 - 2 | 2.45 | 0.62 | 5.1 - 19 | 2.96 | 0.51 |
| 5.2 - 20 | 2.53 | 0.60 | 5.3 - 21 | 2.73 | 0.52 |
| 1.1 - 3 | 2.63 | 0.66 | 1.1 - 1 | 2.69 | 0.53 |
| 4.2 - 17 | 2.64 | 0.70 | 5.1 - 18 | 2.93 | 0.53 |
| 1.1 - 1 | 2.69 | 0.53 | 6.2 - 25 | 2.84 | 0.53 |
| 3.2 - 13 | 2.69 | 0.63 | 3.2 - 12 | 2.93 | 0.56 |
| 4.1 - 15 | 2.69 | 0.68 | 2.2 - 10 | 2.93 | 0.58 |
| 4.1 - 16 | 2.71 | 0.68 | 5.3 - 22 | 2.75 | 0.58 |
| 5.3 - 21 | 2.73 | 0.52 | 5.2 - 20 | 2.53 | 0.60 |
| 2.1 - 8 | 2.74 | 0.66 | 6.1 - 23 | 2.90 | 0.61 |
| 1.2 - 5 | 2.75 | 0.69 | 6.2 - 26 | 2.75 | 0.61 |
| 5.3 - 22 | 2.75 | 0.58 | 1.1 - 2 | 2.45 | 0.62 |
| 6.2 - 26 | 2.75 | 0.61 | 6.1 - 24 | 2.77 | 0.62 |
| 4.1 - 14 | 2.76 | 0.65 | 3.2 - 13 | 2.69 | 0.63 |
| 6.1 - 24 | 2.77 | 0.62 | 2.2 - 9 | 2.88 | 0.64 |
| 6.2 - 25 | 2.84 | 0.53 | 4.1 - 14 | 2.76 | 0.65 |
| 3.1 - 11 | 2.86 | 0.43 | 1.1 - 3 | 2.63 | 0.66 |
| 2.2 - 9 | 2.88 | 0.64 | 2.1 - 8 | 2.74 | 0.66 |
| 2.1 - 7 | 2.90 | 0.67 | 1.2 - 6 | 2.36 | 0.67 |
| 6.1 - 23 | 2.90 | 0.61 | 2.1 - 7 | 2.90 | 0.67 |
| 2.2 - 10 | 2.93 | 0.58 | 4.1 - 15 | 2.69 | 0.68 |
| 3.2 - 12 | 2.93 | 0.56 | 4.1 - 16 | 2.71 | 0.68 |
| 5.1 - 18 | 2.93 | 0.53 | 1.2 - 5 | 2.75 | 0.69 |
| 5.1 - 19 | 2.96 | 0.51 | 4.2 - 17 | 2.64 | 0.70 |

The difficulty of implementation came out quite clearly in the data as seen in earlier representations and again in the ranking of the means. Only two of the questions have a mean lower than 2.50, question 6 linked to Item 1.2 related to ethical behavior and question 2, Item 1.1, related to leaders communicating core values and performance expectations. The most difficult, as perceived by the panels in this

study, relate to Item 5.1 promoting cooperation, initiative, and innovation in the organizational structure and motivating staff to their fullest potential. Although these areas are difficult to implement, the study districts have found approaches to implement them as indicated in the high levels of implementation reporting in the results. Table 4.6 displays the impact of implementation on collective teacher efficacy data by ranking in ascending order the means and standard deviations.

| Table 4.6 — Ranked Aggregate Means and Standard Deviations for Impact of Implementation on Collective Teacher Efficacy | | | | | |
|---|---------------|-----------|---|---------------|-----------|
| Aggregate Impact Means | | | Aggregate Impact Standard Deviations | | |
| Category.Item – Ques | Impact | SD | Category.Item – Ques | Impact | SD |
| 4.1 - 16 | 1.57 | 0.80 | 2.2 - 10 | 2.00 | 0.59 |
| 5.2 - 20 | 1.57 | 0.67 | 3.2 - 12 | 2.05 | 0.63 |
| 6.1 - 24 | 1.58 | 0.70 | 6.2 - 25 | 2.04 | 0.63 |
| 4.2 - 17 | 1.65 | 0.77 | 2.1 - 8 | 1.95 | 0.66 |
| 4.1 - 15 | 1.67 | 0.69 | 5.2 - 20 | 1.57 | 0.67 |
| 6.1 - 23 | 1.71 | 0.77 | 4.1 - 15 | 1.67 | 0.69 |
| 2.2 - 9 | 1.73 | 0.82 | 6.2 - 26 | 2.05 | 0.69 |
| 1.2 - 6 | 1.79 | 0.81 | 1.2 - 4 | 1.98 | 0.70 |
| 4.1 - 14 | 1.81 | 0.78 | 3.1 - 11 | 2.12 | 0.70 |
| 1.1 - 1 | 1.88 | 0.74 | 6.1 - 24 | 1.58 | 0.70 |
| 1.1 - 2 | 1.90 | 0.73 | 1.1 - 2 | 1.90 | 0.73 |
| 1.1 - 3 | 1.90 | 0.77 | 1.1 - 1 | 1.88 | 0.74 |
| 2.1 - 8 | 1.95 | 0.66 | 2.1 - 7 | 1.98 | 0.75 |
| 5.1 - 18 | 1.95 | 0.78 | 1.1 - 3 | 1.90 | 0.77 |
| 1.2 - 4 | 1.98 | 0.70 | 4.2 - 17 | 1.65 | 0.77 |
| 2.1 - 7 | 1.98 | 0.75 | 6.1 - 23 | 1.71 | 0.77 |
| 2.2 - 10 | 2.00 | 0.59 | 4.1 - 14 | 1.81 | 0.78 |
| 6.2 - 25 | 2.04 | 0.63 | 5.1 - 18 | 1.95 | 0.78 |
| 3.2 - 12 | 2.05 | 0.63 | 5.3 - 21 | 2.17 | 0.78 |
| 6.2 - 26 | 2.05 | 0.69 | 3.2 - 13 | 2.18 | 0.80 |
| 5.1 - 19 | 2.09 | 0.80 | 4.1 - 16 | 1.57 | 0.80 |
| 3.1 - 11 | 2.12 | 0.70 | 5.1 - 19 | 2.09 | 0.80 |
| 5.3 - 21 | 2.17 | 0.78 | 1.2 - 6 | 1.79 | 0.81 |
| 3.2 - 13 | 2.18 | 0.80 | 2.2 - 9 | 1.73 | 0.82 |
| 5.3 - 22 | 2.21 | 0.82 | 5.3 - 22 | 2.21 | 0.82 |
| 1.2 - 5 | 2.44 | 0.85 | 1.2 - 5 | 2.44 | 0.85 |

The ranking illustrates the perception that the implementation of all of the management practices in the Criteria has a strong to moderate impact on collective teacher efficacy. Again those areas with the greatest impact are 4.1, questions 15 and 16, the extent to which the district analyzes data relevant to goals and objectives and the extent to which the district disaggregates and analyzes student data; question 20, Item 5.2, training and development; and questions 23 and 24, Item 6.1, related to the design and delivery of educational programs that are student-centered, engaging, and aligned to district goals and objectives. Educational programs must align to student achievement goals and meet the needs of all learners.

The areas that have a moderate impact, based on these results, link to Item 1.2 on how the district facilitates the use of district resources; Item 3.2 focused on Student and Stakeholder Satisfaction, Item 5.3, Faculty Well-Being and Satisfaction; and Item 6.2 related to Student Services. Although these areas still have impact on collective efficacy, they are all items that may have less effect on teachers' ability to lead students to high levels of academic achievement.

A significant finding emerges in the data revealing that eight of the top 10 ranked areas indicating high levels of implementation also appear as the top ten for impact with these questions also having a strong to moderate impact on collective efficacy. It appears that in spite of the difficulty, the management process can be implemented and impact the collective efficacy of teachers on the front line—in classrooms with students.

Research question 2 will examine the data from each of the study districts, disaggregating the data and permitting deeper analysis of the perceptions of central office, principals, and teachers on the extent of implementation, difficulty of implementation, and the impact of implementation on collective teacher efficacy.

Results and Analysis of Research Question 2

Research question 2 asked, “Do differences exist within each district between/among and within panel groups (central office leaders, principals, and teachers) in the perceptions of the extent of the implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy?” This question utilized the aggregated data from each district as well as the individual panel group data focusing on the median response to determine consensus between the panels and within each panel group. Further analysis employed the mean and standard deviation to determine the variance of responses.

The methodology used in this study limited the number of participants per district to 24 with three panels of eight members representing central office, principals, and classroom teachers. The superintendent invited participation of the eight central office and principal panel members, and each principal recommended a teacher to form the teacher panel. As a result, participation in the study was not anonymous; however, participant responses were confidential.

In order to maintain confidentiality of responses from individual panel members of each district, the analysis of the results related to research question 2 will reference each district as A, B, or C. To further maintain confidentiality, the data are displayed in table format. Histograms were used for analysis but are not shown because panel groups were small (5-8) and providing the total number of responses would jeopardize individual confidentiality.

The Delphi rounds elicited from each panel of experts individual perspectives toward the extent of implementation of the Baldrige Education Criteria for Performance Excellence, the difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy. Rounds two and three used selected Items from the previous questionnaire as determined by panel member responses eliminating those Items that met the requirement for demonstrating consensus. Panel members also had the opportunity to generate a minority report that provided supporting statements for individual responses that fall one unit or more from the median of the group responses from round one.

The purposes of these rounds were (1) to move toward a consensus on each Item, if there was a consensus; and (2) to solicit the rationale for a response that differed from the median response. Participants could maintain their original response or change their original response to agree with the median response of the group. This study used the following rule to determine consensus:

1. 50% or more of the responses of each subgroup fell within the median response.
2. 60% or more of the total responses fell within the median response.

The analysis of research question 2 utilized the responses of each panel group within the district and the aggregate responses of the district for each of the participating study districts. The data were organized by each of the three Likert scale responses: the extent of implementation of the Criteria, the difficulty of implementation of the Criteria, and the impact of implementation of the Criteria on collective teacher efficacy. The analysis focused on the fourteen Items from the six categories of the Baldrige Education Criteria for Performance Excellence and will examine each district independently and then synthesize key trends and patterns that emerge across all three districts. Tables display the data for analyses and include the mean, standard deviation, and “not observed” responses.

District A Results and Analysis

Item 1.1 Organizational Leadership Questions 1 through 3 provide data reflecting participant perceptions related to how senior leaders provide organizational leadership by: establishing and deploying core values and performance expectations; creating an environment that promotes ethical behavior, equity for students, empowerment, and innovation; reviewing and assessing performance data and communicating findings and acting on those findings. Table 4.7 displays District A panel group and aggregate data for questions 1 through 3.

| Table 4.7 —Research Question (RQ) 2 District A between Group and within Group Data for Questions 1-3 | | | | | | | | | |
|---|----------------|-----|----|--|-----|----|---|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement 2. Systematic approach, well integrated and implemented 3. Systematic approach, reasonably implemented 4. Systematic approach, early stages of planning and implementation 5. No systematic approach 6. Not observed (NO) | | | | 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | | 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 1. To what extent have district leaders established core values and performance expectations? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.13 | .35 | | 2.88 | .35 | | 2.00 | .53 | |
| Principals | 1.88 | .35 | | 2.50 | .53 | | 2.00 | .53 | |
| Teachers | 2.00 | 0 | | 2.60 | .55 | | 2.20 | .45 | |
| District Aggregate | 2.00 | .32 | | 2.67 | .48 | | 2.05 | .50 | |
| 2. To what extent have district leaders communicated the core values and performance expectations? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.13 | .35 | | 2.88 | .35 | | 1.88 | .35 | |
| Principals | 1.88 | .35 | | 2.25 | .71 | | 1.50 | .53 | |
| Teachers | 2.20 | .45 | | 2.80 | .45 | | 2.20 | .45 | |
| District Aggregate | 2.05 | .38 | | 2.62 | .59 | | 1.81 | .51 | |
| 3. To what extent have district leaders reviewed district performance to assess progress of goals? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.13 | .35 | | 2.88 | .35 | | 2.00 | 0 | |
| Principals | 2.00 | .76 | | 2.50 | .76 | | 1.63 | .52 | |
| Teachers | 2.20 | .45 | | 3.00 | 0 | | 1.80 | .45 | |
| District Aggregate | 2.10 | .54 | | 2.76 | .54 | | 1.81 | .40 | |

Question 1 shows District A between group consensus was reached regarding the extent of implementation and the impact on collective efficacy with little variance in responses for implementation (central office, $SD = .35$; principals, $SD = .35$; teachers, $SD = 0$). While each panel group reached consensus on the difficulty of implementation, consensus was not reached between the groups with principals and teachers almost evenly divided on the level of difficulty between easy and difficult. The central office panel had the least variance ($SD = .35$).

For question 2, District A between group consensus was reached for the extent of implementation agreeing that implementation was systematic and well-integrated. Each panel group reached consensus, but between group agreement was not reached with the teacher panel perceiving the difficulty as easy while central office and principals perceived this area as difficult to implement. Question 3 shows that all District A panels reached consensus across all the scales with the greatest variance occurring in the principal panel for the implementation and difficulty scales.

For Item 1.1, District A panel groups consistently agreed on the extent of implementation and the impact on collective teacher efficacy, which was perceived as moderate. The level of difficulty was largely perceived as difficult with between group consensus reached only on question 3.

Item 1.2 Public Responsibility and Citizenship. Questions 4 through 6 provide data reflecting participant perceptions related to how the organization fulfills its public responsibility and practices good citizenship, and how senior leaders, as well as faculty and staff, promote good citizenship by actively identifying and supporting key communities supporting the organization's mission and core values. Table 4.8 displays District A panel group and aggregate data for questions 4 through 6.

| Table 4.8 — RQ 2 District A between Group and within Group Data for Questions 4-6 | | | | | | | | | |
|--|----------------|------|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 4. To what extent have district leaders examined the changing needs and capabilities of the district to ensure continuous improvement? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.38 | .74 | | | | | 1.75 | .46 | |
| Principals | 1.88 | .83 | | | | | 2.13 | .64 | |
| Teachers | 2.60 | .89 | | | | | 1.80 | .45 | |
| District Aggregate | 2.24 | .83 | | | | | 1.90 | .54 | |
| 5. To what extent have district leaders facilitated the use of district resources (e.g., facilities, extended outreach programs, community education, etc.) for the community? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | |
| Central Office | 2.38 | .52 | | 2.75 | .46 | | 2.25 | .45 | |
| Principals | 1.75 | .46 | | 2.38 | .74 | | 1.50 | .53 | |
| Teachers | 2.50 | .58 | 1 | 2.75 | .50 | 1 | 2.00 | 0 | 1 |
| District Aggregate | 2.15 | .59 | 1 | 2.60 | .60 | 1 | 1.90 | .55 | 1 |
| 6. To what extent have district leaders ensured ethical practices in all interactions with students and stakeholders? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.50 | 1.31 | | 2.50 | .76 | | 1.43 | .53 | 1 |
| Principals | 1.88 | .35 | | 2.00 | .76 | | 1.13 | .35 | |
| Teachers | 2.00 | 0 | | 2.00 | 0 | | 1.20 | .45 | |
| District Aggregate | 2.14 | .85 | | 2.19 | .68 | | 1.25 | .44 | 1 |

The responses for question 4 show District A consensus within the central office panel only. The difficulty of implementation scale has been omitted for consideration in analysis since one district's responses were not received and reporting the data would reveal the identity of the districts. Within and between group consensus was reached on the moderate impact on collective efficacy with the greatest variance among principals ($SD = .64$).

District A did not reach between group consensus on any of the scales.

Central office and principals reached within group consensus on all of the scales with the greatest variance among principals concerning the level of difficulty. Impact was perceived as moderate for all panel groups with no variance among teachers but with one “not observed” response. Question 6 shows between group consensus for all scales.

The data for the questions related to Item 1.2 shows the greatest District A consensus between and within groups regarding question 6, the extent district leaders ensured ethical practices. The greatest variance in responses occurred in question 4 on the extent of implementation scale with only the central office reaching within group consensus.

Item 2.1 Strategy Development. Questions 7 and 8 provide data reflecting participant perceptions related to how the organization develops its strategic objectives considering key factors that may influence future success and balancing the needs of students and stakeholders. Table 4.9 displays District A panel group and aggregate data for questions 7 and 8.

| Table 4.9 — RQ 2 District A between Group and within Group Data for Questions 7-8 | | | | | | | | | |
|--|----------------|-----|----|-------------------------------------|-----|----|--|-----|----|
| <i>Implementation</i> | | | | <i>Difficulty of Implementation</i> | | | <i>Impact on Collective Teacher Efficacy</i> | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 7. To what extent have district leaders facilitated a planning process that involves all stakeholders? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.13 | .35 | | 2.88 | .35 | | 1.88 | .35 | |
| Principals | 1.88 | .35 | | 2.63 | .74 | | 1.50 | .35 | |
| Teachers | 2.20 | .84 | | 2.75 | .50 | 1 | 1.80 | .45 | |
| District Aggregate | 2.05 | .50 | | 2.75 | .55 | 1 | 1.71 | .46 | |
| 8. To what extent have district leaders considered student and stakeholder needs, expectations, and opportunities in the planning process? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.25 | .46 | | 2.88 | .35 | | 1.88 | .35 | |
| Principals | 2.38 | .52 | | 2.75 | .46 | | 1.88 | .35 | |
| Teachers | 2.38 | .55 | | 2.40 | .55 | | 2.00 | .71 | |
| District Aggregate | 2.33 | .48 | | 2.71 | .46 | | 1.95 | .50 | |

In District A, between group consensus was reached on the impact on collective efficacy for questions 7 and 8 and on the extent of implementation for question 8. The central office panel group revealed the least variance and within group consensus across all scales for both questions.

Item 2.2 Strategy Deployment. Questions 9 and 10 provide data reflecting participant perceptions related to how the organization converts strategic objectives into action plans, especially the extent of deployment throughout the organization as evidenced by alignment of processes to goals and objectives. Table 4.10 displays District A panel group and aggregate data for questions 9 and 10.

| Table 4.10 — RQ 2 District A between Group and within Group Data for Questions 9-10 | | | | | | | | | |
|---|----------------|-----|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 9. To what extent have district leaders developed and implemented action plans to achieve objectives? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.00 | 0 | | 3.00 | 0 | | 1.00 | 0 | |
| Principals | 2.00 | .53 | | 2.25 | .71 | | 1.25 | .46 | |
| Teachers | 2.20 | .45 | | 3.00 | 0 | | 1.40 | .55 | |
| District Aggregate | 2.05 | .38 | | 2.71 | .56 | | 1.19 | .40 | |
| 10. To what extent have district leaders identified performance measures for tracking the progress of action plans? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.00 | .53 | | 3.00 | 0 | | 2.00 | 0 | |
| Principals | 2.00 | .53 | | 2.75 | .46 | | 1.75 | .46 | |
| Teachers | 2.00 | .71 | | 3.20 | .45 | | 2.40 | .55 | |
| District Aggregate | 2.00 | .55 | | 2.95 | .38 | | 2.00 | .45 | |

Questions 9 and 10 show District A consensus within and between groups across all scales with little variance. The central office panel shows no variance in responses across all scales for question 9 and for difficulty of implementation and impact on collective efficacy for question 10.

Item 3.1 Knowledge of Student, Stakeholder, and Market Needs and Expectations.

Question 11 provides data reflecting participant perceptions related to the organization's key processes for determining knowledge about the requirements, expectations, and preferences of both current and future student, stakeholder, and markets. The information gained from these intelligence processes serves to create a climate open to learning and development of all students. Table 4.11 displays the District A panel group and aggregate data for question 11.

| Table 4.11 —RQ 2 District A between Group and within Group Data for Question 11 | | | | | | | | | |
|--|----------------|-----|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 11. To what extent has the district developed strategies to determine key student needs, expectations, and stakeholder satisfaction? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.00 | .93 | | 2.88 | .35 | | 2.13 | .64 | |
| Principals | 2.00 | .53 | | 2.63 | .52 | | 2.13 | .64 | |
| Teachers | 2.40 | .55 | | 3.00 | 0 | | 1.80 | .45 | |
| District Aggregate | 2.48 | .81 | | 2.81 | .40 | | 2.05 | .59 | |

District A panel groups reached within group and between group consensus on the difficulty of implementation and the impact on collective teacher efficacy. The greatest variance ($SD = .93$) regarding implementation of this area occurred in the central office panel with the principals and teachers agreeing on the extent of implementation.

Item 3.2 Student and Stakeholder Relationships and Satisfaction. Questions 12 and 13 provide data reflecting participant perceptions related to how the organization builds relationships to retain students and enhance student learning. This Item also examines the organization's ability to deliver services that satisfy students and stakeholders as well developing new opportunities to meet those needs. Table 4.12 displays the District A panel group and aggregate data for questions 12 and 13.

| Table 4.12 —RQ 2 District A between Group and within Group Data for Questions 12-13 | | | | | | | | | |
|---|----------------|-----|----|--|-----|----|---|-----|----|
| <i>Implementation</i> | | | | <i>Difficulty of Implementation</i> | | | <i>Impact on Collective Teacher Efficacy</i> | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement 2. Systematic approach, well integrated and implemented 3. Systematic approach, reasonably implemented 4. Systematic approach, early stages of planning and implementation 5. No systematic approach 6. Not observed (NO) | | | | 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | | 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 12. To what extent has the district built relationships to enhance student performance and retain students? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.50 | .76 | | 3.25 | .46 | | 2.13 | .35 | |
| Principals | 2.13 | .64 | | 2.38 | .74 | | 2.00 | .76 | |
| Teachers | 2.40 | .55 | | 2.80 | .45 | | 2.00 | .71 | |
| District Aggregate | 2.33 | .66 | | 2.81 | .68 | | 2.05 | .59 | |
| 13. To what extent has the district collected information from students and stakeholders to improve the district and its services? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.38 | .52 | | 3.00 | 0 | | 2.13 | .35 | |
| Principals | 2.13 | .83 | | 2.25 | .46 | | 1.63 | .52 | |
| Teachers | 2.80 | .45 | | 2.80 | .45 | | 2.60 | .55 | |
| District Aggregate | 2.38 | .67 | | 2.67 | .48 | | 2.05 | .59 | |

For question 12, the District A reached within group and between group consensus on all the scales agreeing that implementation was systematic and well-integrated, difficult to implement and had a moderate impact on collective efficacy. Although consensus was reached some variance occurred in responses primarily in the principal panel.

The district did not reach between group consensus for question 13 on any of the scales, but all groups reached within group agreement on the difficulty of implementation and the impact on collective efficacy. The greatest variance occurred in perceptions of implementation. Central office agreed that implementation was systematic and well-integrated while teachers viewed this area as systematic and

reasonably implemented. Principal responses revealed a range of responses from 1 to 3 on the implementation scale with a standard deviation of .83.

Item 4.1 Measurement and Analysis of Organizational Performance. Questions 14 through 16 provide data reflecting participant perceptions related to the mechanical processes for data collection as well as the analytical processes used to interpret the data that is then deployed at all levels of the organization to improve operational and student performance. Table 4.13 displays the District A panel group and aggregate data for questions 14 through 16.

| Table 4.13 — RQ 2 District A between Group and within Group Data for Questions 14-16 | | | | | | | | | |
|---|----------------|-----|----|--|-----|----|---|------|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement 2. Systematic approach, well integrated and implemented 3. Systematic approach, reasonably implemented 4. Systematic approach, early stages of planning and implementation 5. No systematic approach 6. Not observed (NO) | | | | 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | | 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 14. To what extent has the district gathered and integrated data and information from many sources to support key processes and action plans? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.13 | .35 | | 3.00 | 0 | | 1.25 | .46 | |
| Principals | 1.88 | .35 | | 2.25 | .46 | | 1.25 | .46 | |
| Teachers | 1.75 | .50 | 1 | 2.80 | .84 | | 1.20 | .45 | |
| District Aggregate | 1.95 | .39 | 1 | 2.67 | .58 | | 1.24 | .44 | |
| 15. To what extent has the district analyzed data and reviewed district performance as it relates to goals and action plans? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.00 | 0 | | 2.88 | .35 | | 1.50 | .53 | |
| Principals | 1.63 | .52 | | 2.50 | .53 | | 1.25 | .46 | |
| Teachers | 2.00 | .71 | | 3.00 | 0 | 1 | 1.75 | .50 | 1 |
| District Aggregate | 1.86 | .48 | | 2.75 | .44 | 1 | 1.45 | .51 | 1 |
| 16. To what extent has the district disaggregated and analyzed data to modify and improve instruction to enhance student achievement? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.00 | 0 | | 3.00 | 0 | | 1.38 | .52 | |
| Principal | 1.88 | .35 | | 2.50 | .76 | | 1.13 | .35 | |
| Teacher | 2.00 | .71 | | 3.00 | .82 | 1 | 1.50 | 1.00 | 1 |
| District Aggregate | 1.95 | .38 | | 2.80 | .62 | 1 | 1.30 | .57 | 1 |

Question 14 shows that District A reached between group consensus on implementation and impact on collective efficacy with little variance as evidenced by standard deviations of .35 to .50 in the teacher panel with one “not observed” response. The central office panel agreed that implementation was difficult; principals perceived it as easy; and, teacher responses yielded a dispersion of response from easy to very difficult ($SD = .84$).

On question 15, District A responses show within and between group consensus on implementation and difficulty of implementation with the greatest variance among teachers ($SD = .71$) on implementation and among principals (.53) on difficulty of implementation. For impact on collective efficacy, consensus was reached within each panel group with central office and teachers perceiving impact as strong and principals perceiving it as moderate.

Question 16 showed that central office and principals reached consensus on all scales. Between group consensus occurred on implementation and the impact on collective efficacy. The greatest variance was exhibited in the teacher panel for implementation ($SD = .71$), level of difficulty ($SD = .82$), and impact ($SD = 1.00$) with one “not observed” response.

Responses to questions related to Item. 4.1 indicate that within each group and among groups, the panels perceive implementation as systematic and well-integrated, difficult to implement with a strong impact on collective teacher efficacy. *Item 4.2 Information Management.* Question 17 provides data reflecting participant perceptions related to how organizations ensure the quality and availability of data and information for faculty, staff, students, stakeholders, and suppliers or partners.

This Item addresses not only the availability of data, its integrity, reliability, accuracy, and confidentiality but also whether the hardware and software are user friendly, reliable, and updated to remain current with educational service needs. Table 4.14 displays District A panel group and aggregate data for question 17.

| Table 4.14 —RQ 2 District A between Group and within Group Data for Question 17 | | | | | | | | | |
|---|----------------|------|----|------------------------------|-----|----|---------------------------------------|------|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 17. To what extent has the district employed an effective system for making data and information available? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.13 | .35 | | 3.00 | 0 | | 1.63 | .53 | |
| Principals | 1.88 | .64 | | 2.25 | .46 | | 1.13 | .35 | |
| Teachers | 2.50 | 1.00 | 1 | 2.65 | .50 | 1 | 1.50 | 1.00 | 1 |
| District Aggregate | 2.10 | .64 | 1 | 2.65 | .49 | 1 | 1.40 | .60 | 1 |

Between group consensus was reached in District A for implementation and within group consensus was reached for the difficulty of implementation and impact on collective efficacy. The greatest variance for all scales occurred in the teacher panel (implementation, $SD = 1.00$; difficulty, $SD = .50$; impact, 1.00)

Item 5.1 Work Systems. Questions 18 and 19 provide data reflecting participant perceptions related to how the organization builds relationships to retain students and enhance student learning. This Item also examines the organization's ability to deliver services that satisfy students and stakeholders as well developing new opportunities to meet those needs. Table 4.15 displays District A panel group and aggregate data for questions 18 and 19.

| Table 4.15 — RQ 2 District A between Group and within Group Data for Questions 18-19 | | | | | | | | | |
|---|----------------|-----|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 18. To what extent has the district organized and managed work and jobs to promote cooperation, initiative, innovation, and organizational culture? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.13 | .35 | | 3.00 | 0 | | 1.38 | .52 | |
| Principals | 2.13 | .35 | | 2.63 | .52 | | 1.25 | .46 | |
| Teachers | 2.60 | .55 | | 3.00 | .82 | 1 | 1.40 | .55 | |
| District Aggregate | 2.24 | .44 | | 3.00 | .49 | 1 | 1.33 | .48 | |
| 19. To what extent has the district motivated faculty and staff to develop and utilize their full potential? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.38 | .74 | | 3.00 | .58 | | 1.63 | .52 | |
| Principals | 2.13 | .35 | | 2.75 | .46 | | 1.88 | .64 | |
| Teachers | 2.40 | .55 | | 2.75 | .50 | 1 | 2.20 | .84 | |
| District Aggregate | 2.29 | .56 | | 2.84 | .50 | 1 | 1.86 | .65 | |

Question 18 shows District A within and between group consensus in perceptions of implementation and impact on collective efficacy with greater variance in the teacher panel for both scales ($SD = .55$). The central office and principal panel reached consensus on all three scales. The teacher panel had a dispersion of responses from 2 to 4 on the difficulty of implementation scale and a standard deviation of .82 with one “not observed” response.

Question 19 showed consensus within and between groups for the extent of implementation and the difficulty of implementation. The greatest variance ($SD = .84$) occurred in the teacher panel, which did not reach consensus, for impact on collective efficacy.

Item 5.2 Faculty and Staff Education, Training, and Development. Question 20 provides data reflecting participant perceptions related to how the organization's faculty and staff education and training support the achievement of strategies and objectives. This Item also includes examination of processes for building faculty and staff knowledge, skills, and capabilities that contribute to high performance. Table 4.16 displays District A panel group and aggregate data for question 20.

| Table 4.16 — RQ 2 District A between Group and within Group Data for Question 20 | | | | | | | | | |
|--|----------------|-----|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 20. To what extent has the district addressed and delivered faculty and staff education, training, and development that is aligned to district goals, action plans, and student achievement? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.00 | 0 | | 2.75 | .46 | | 1.25 | .46 | |
| Principals | 2.00 | .53 | | 2.38 | .74 | | 1.38 | .74 | |
| Teachers | 2.60 | .89 | | 2.60 | .55 | | 1.80 | .84 | |
| District Aggregate | 2.14 | .57 | | 2.57 | .60 | | 1.43 | .68 | |

The data for District A revealed consensus within and between groups for the extent of implementation and the difficulty of implementation. The greatest variance ($SD = .84$) occurred in the teacher panel, which did not reach consensus, for impact on collective efficacy.

Item 5.3 Faculty and Staff Well-being and Satisfaction. Questions 21 and 22 provide data reflecting participant perceptions related to how the organization maintains a work environment and faculty and staff climate that contributes to the well-being, satisfaction, and motivation of all employees. This Item also examines workplace health, safety, and ergonomics as well as evaluation methods and measures for determining faculty and staff satisfaction and motivation. Table 4.17 displays District A panel group and aggregate data for questions 21 and 22.

| Table 4.17 —RQ 2 District A between Group and within Group Data for Questions 21-22 | | | | | | | | | |
|---|----------------|------|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 21. To what extent has the district ensured workplace health, safety, and ergonomics? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.75 | .46 | | 2.88 | .35 | | 2.00 | .53 | |
| Principals | 2.38 | .74 | | 2.75 | .46 | | 1.88 | .64 | |
| Teachers | 3.60 | .89 | | 3.00 | 0 | 1 | 1.80 | .84 | |
| District Aggregate | 2.81 | .81 | | 2.85 | .37 | 1 | 1.90 | .62 | |
| 22. To what extent has the district employed a system to assess the key factors that affect faculty and staff well-being, satisfaction, and motivation? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.00 | 0 | | 2.75 | .46 | | 2.25 | .46 | |
| Principals | 2.75 | 1.16 | | 2.88 | .35 | | 2.13 | .64 | |
| Teachers | 3.00 | 0 | | 2.60 | .55 | | 1.40 | .55 | |
| District Aggregate | 2.90 | .81 | | 2.76 | .44 | | 2.00 | .63 | |

Question 21 shows that District A reached between group consensus on implementation and the difficulty of implementation. Central office and principals reached consensus on the moderate impact on collective teacher efficacy while the teacher panel exhibited responses from strong to limited impact ($SD = .84$).

For question 22, all District A panels reached within group consensus, and reached between group consensus on the extent and difficulty of implementation. Central office and principals perceived a moderate impact on efficacy while teachers responded that implementation had a strong impact on collective teacher efficacy. The least variance across scales occurred in the central office panel.

Item 6.1 Education Design and Delivery Processes. Questions 23 and 24 provide data reflecting participant perceptions related to how the organization manages the key processes for the design and delivery of educational programs. Table 4.18 displays District A panel group and aggregate data for questions 23 and 24.

| Table 4.18 — RQ 2 District A between Group and within Group Data for Questions 23-24 | | | | | | | | | |
|--|----------------|------|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 23. To what extent has the district considered student differences when developing educational programs that engage students in active learning? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.38 | .52 | | 3.13 | .35 | | 1.50 | .53 | |
| Principals | 2.13 | .35 | | 2.50 | .53 | | 1.25 | .46 | |
| Teachers | 3.00 | 1.22 | | 3.40 | .55 | | 1.20 | .45 | |
| District Aggregate | 2.43 | .75 | | 2.95 | .59 | | 1.33 | .48 | |
| 24. To what extent has the district employed a process for developing educational programs aligned to district and state goals? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.88 | .35 | | 2.75 | .46 | | 1.25 | .46 | |
| Principals | 2.00 | .53 | | 2.63 | .52 | | 1.13 | .35 | |
| Teachers | 2.60 | .55 | | 2.60 | .55 | | 1.20 | .45 | |
| District Aggregate | 2.10 | .54 | | 2.67 | .48 | | 1.19 | .40 | |

For question 23, District A reached between group consensus on the difficulty of implementation and the impact on collective efficacy. Central office and principals reached within group consensus on the extent of implementation while the teacher panel responses ranged from 2 to 4 with a standard deviation of 1.22. The data for question 24 showed all groups reaching within group consensus with little variance in responses across all scales. However, the teacher panel disagreed with the extent of implementation perceiving this area as reasonably implemented.

Item 6.2 Student Services. Question 25 provides data reflecting participant perceptions related to how the organization manages its key student services. Table 4.19 displays District A panel group and aggregate data for question 25.

| Table 4.19 — RQ 2 District A between Group and within Group Data for Question 25 | | | | | | | | | |
|--|----------------|------|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 25. To what extent has the district employed a process to measure effectiveness of the implementation of educational programs? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.50 | 1.07 | | 3.00 | .53 | | 1.88 | .64 | |
| Principals | 2.25 | .46 | | 2.57 | .53 | | 1.88 | .64 | |
| Teachers | 2.00 | 0 | 2 | 3.00 | 0 | 1 | 2.00 | 0 | 1 |
| District Aggregate | 2.32 | .75 | 2 | 2.84 | .50 | 1 | 1.90 | .55 | 1 |

For question 25 District A reached between and within group consensus on all scales with the teacher panel showing total agreement on their responses for all scales but with some panel members responding “not observed” for this area. The greatest variance in responses occurred in the central office panel on the extent of implementation ($SD = 1.07$).

Item 6.3 Support Processes. Question 26 provides data reflecting participant perceptions related to how the organization manages key processes that support daily operations as an educational organization and faculty and staff delivering services.

Table 4.20 displays District A panel group and aggregate data for question 26.

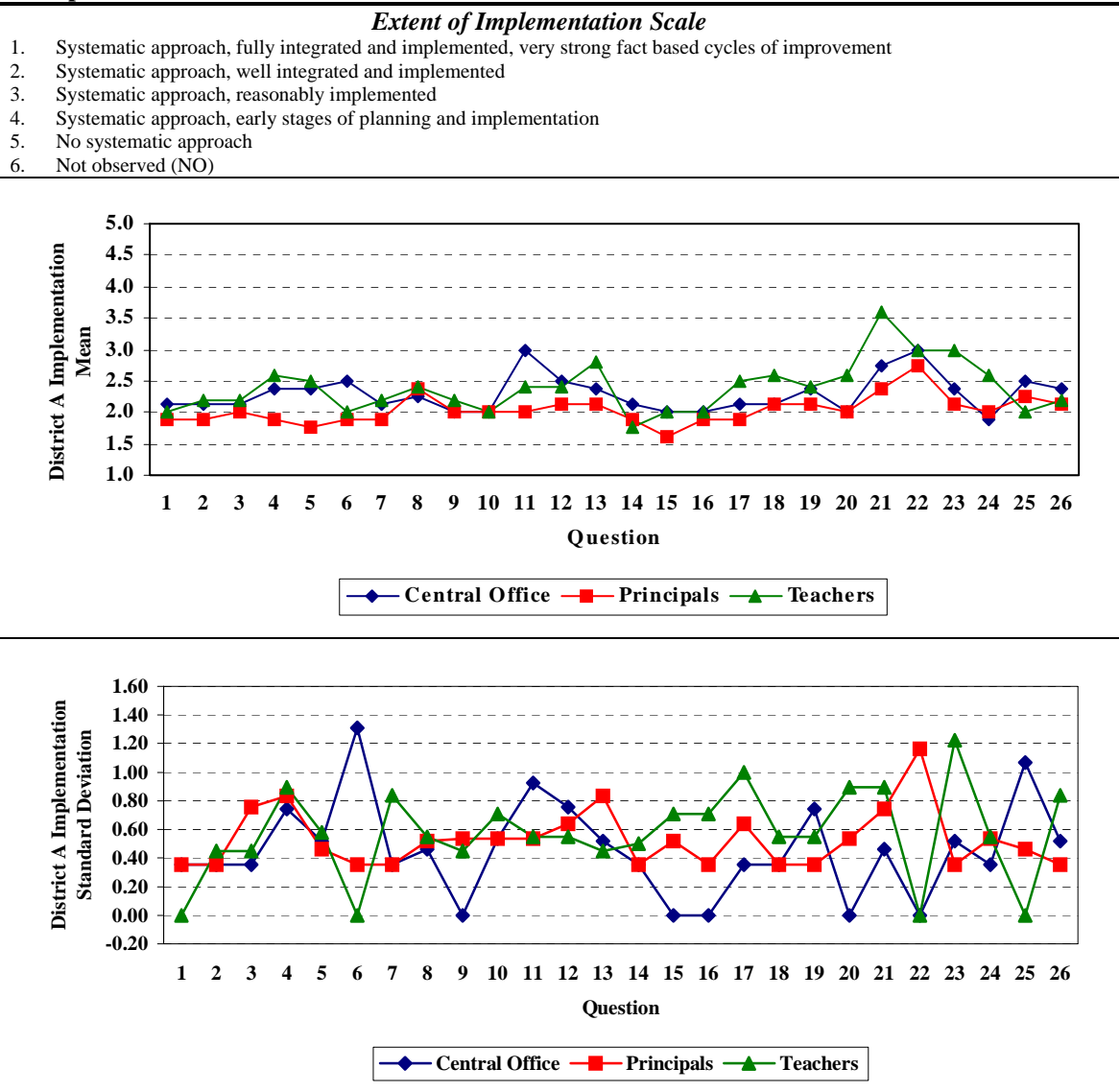
| Table 4.20 — RQ 2 District A Be between Group and within Group Data for Question 26 | | | | | | | | | |
|--|----------------|-----|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 26. To what extent has the district provided support processes that ensure success of educational programs and student services? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.38 | .52 | | 2.88 | .35 | | 1.88 | .35 | |
| Principals | 2.13 | .35 | | 2.50 | .76 | | 1.75 | .46 | |
| Teachers | 2.20 | .84 | | 2.75 | .50 | 1 | 1.60 | .55 | |
| District Aggregate | 2.24 | .54 | | 2.70 | .57 | 1 | 1.76 | .44 | |

District A reached consensus on difficulty of implementation and impact on collective efficacy. The central office and principal panels reached within group consensus on the extent of implementation with the least variance among principals ($SD = .35$) and the greatest variance among teachers ($SD = .84$).

District A Summary

The results for District A revealed that perceptions of the three panel groups, central office, principals, and teachers, largely agree that implementation of the Items of the Baldrige Education Criteria is systematic and well-integrated. Implementing the Criteria, while difficult, has a strong to moderate impact on collective teacher efficacy. The patterns and trends exhibited in the data can best be visualized by the following run charts that show the mean response for each panel group across the 26 questions linked to the Baldrige Criteria Items. Figure 4.33 displays the aggregate means and standard deviations for the extent of implementation for each question and each panel group.

Figure 4.33. District A Run Chart of Implementation Means and Standard Deviations for Panel Groups



The chart demonstrates the level of agreement in District A between each of the panel groups in the perception of the extent of implementation of the areas linked to the Baldrige Criteria. The strongest consensus appears in questions 1, 2, 3, 8, 9, 10, 16, and 26. Questions 1, 2, and 3 relate to organizational leadership, which includes establishing core values and performance expectations, communicating

values and expectations, and reviewing district performance in assessing the progress of district goals. The alignment of the responses between the panel groups for these questions suggests that District A has developed an approach that is integrated and well-implemented across the district and supports the Baldrige core values of visionary leadership, focusing on the future, and managing by fact.

Questions 8, 9, and 10 link to strategic development and deployment, specifically, how senior leaders consider the needs and expectations of students and key stakeholders throughout the planning process, develop action plans that will ensure achievement of the district's strategic objectives, and identify performance measures for tracking the progress of action plans. Questions 8 and 10 show between group consensus and within group consensus demonstrating a strong level of deployment in the area of strategic planning. These results are important because, as an integrated management system, the Baldrige framework, leadership and strategic planning serve as key drivers for continuous improvement in an organization.

Question 16 examines the extent to which the district disaggregates and analyzes data to modify and improve instruction to enhance student achievement. Finally, question 26 addresses the districts processes that provide support to ensure success of educational programs and student services.

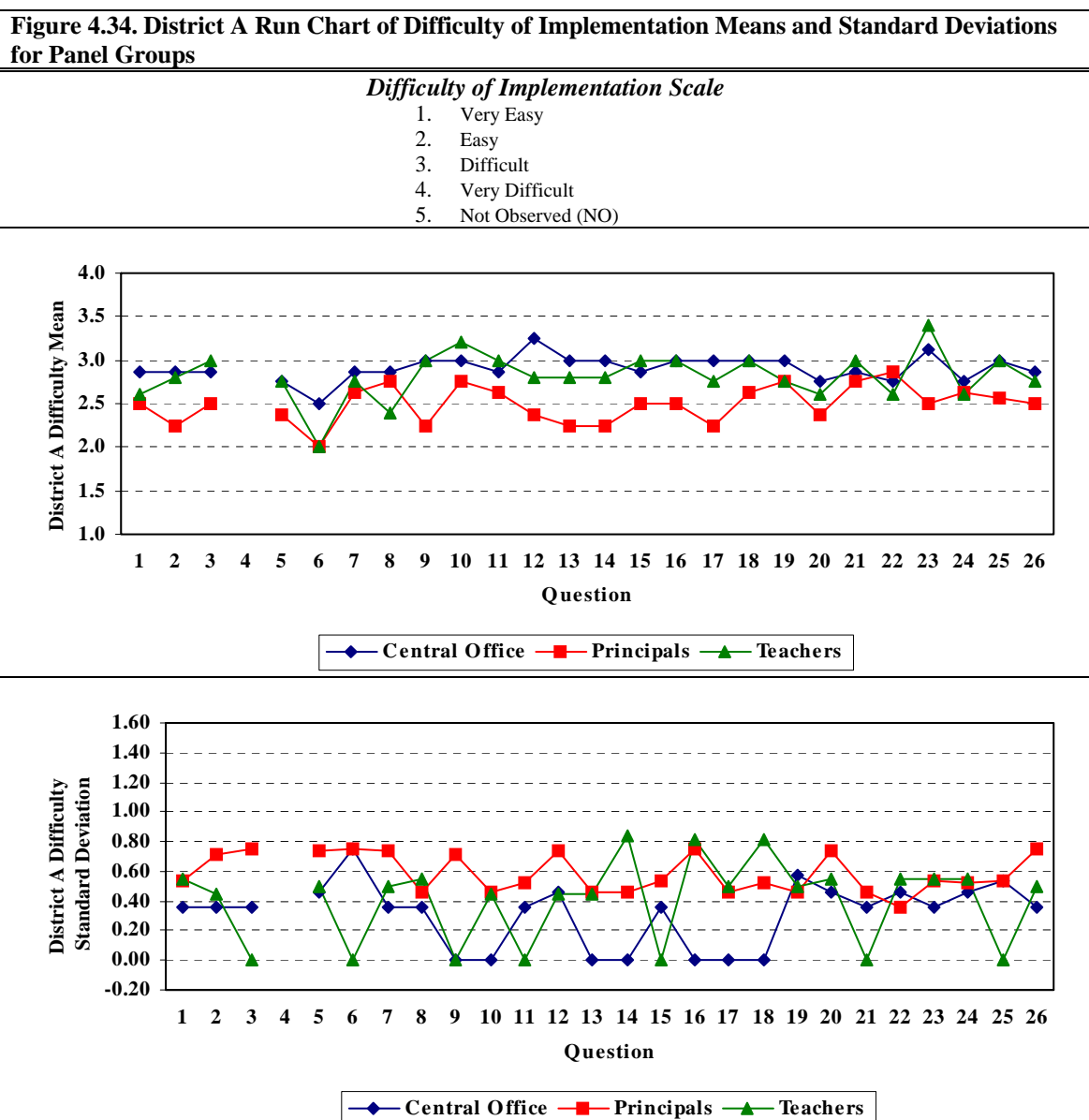
All of the District A panel responses are closely aligned across the questions. Since the panels represent each level of the district, this close fit suggests deployment throughout the organization. The principal panel responses show the most consistency across the questions with the highest level of implementation.

The chart also highlights those questions where panel groups disagree, notably questions 11 and 21. Question 11 considers the extent to which the district has developed strategies to determine key student needs, expectations, and stakeholder satisfaction; and, question 21 assesses how the district ensures workplace health, safety, and ergonomics. Teachers also show up as an outlier for question 13, which asks to what extent the district has collected information from students and stakeholders to improve the district and its services. One plausible cause for the teacher panel responses for questions 13 and 21 may center on the fact that teachers may not be involved in collecting student and stakeholder information since this is often, but not limited to, a district level function to determine the requirements of students and stakeholders. This might take the form of surveys sent to graduating students, parents, or the business community. For question 21, teachers may not recognize overtly the efforts of the administration to provide a safe environment, offer attractive compensation packages, or respond to the overall satisfaction of faculty. The central office panel responses for question 11 may indicate that while an approach to address this area exists in the district, central office perceives that this area has not reached a level of optimal implementation. Another consideration of the outlier responses for any group is the possibility of a gap between approach and deployment for that area or Item of the Criteria.

The chart representing the standard deviations for each question reveals that while there is consensus between the panel groups on the extent of implementation, considerable variance remains within each panel group. The central office panel and teacher panels did have areas in which the groups unanimously agreed on a response.

The reason for the agreement or the extremes in variance between groups is not discernable from the data, but those areas with the greatest variance may represent gaps in deployment.

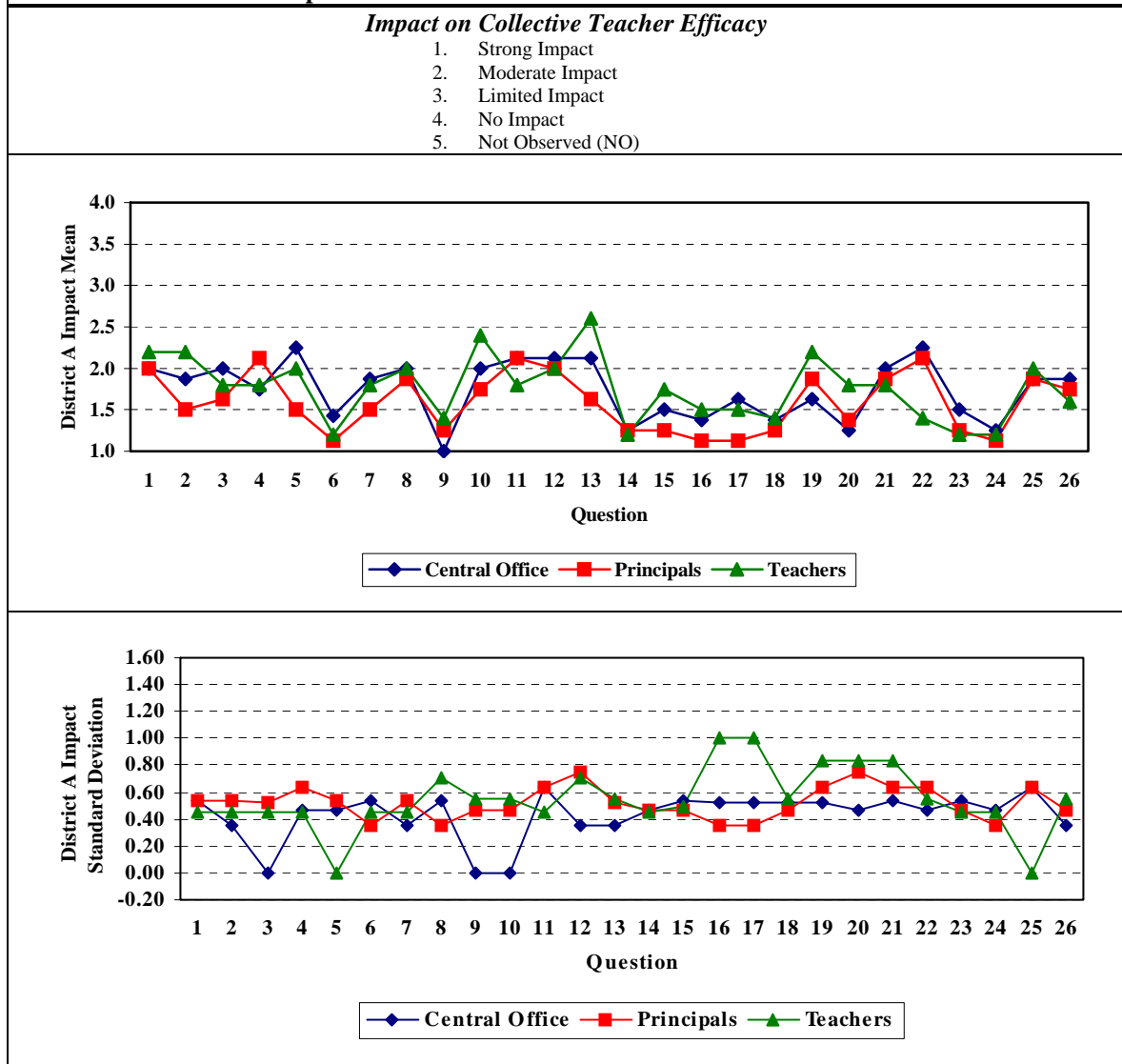
Figure 4.34 displays the aggregate means and standard deviations for the difficulty of implementation for each question and each panel group.



The run chart for the level of difficulty of implementation of the Criteria Items show that, in general, central office and teachers perceived each area as more difficult to implement than did principals. However, the panels largely agreed that each area was difficult to implement except for question 6 where principals and teachers considered ensuring ethical practices in interactions with student and stakeholders as easy to implement. Across most of the questions, principals perceived implementation as easier than did central office or teachers. The factors influencing principal perceptions may be a function of the role of the principal as leader on a campus where the principal has greater control over the systems and processes in place. At the district level, senior leadership must align and integrate a more complex system that includes multiple management functions and campuses, which might explain why the central office panel perceived implementation as more difficult.

The standard deviations dramatically portray the erratic variance between the panels. Both central office and teachers agreed unanimously within the panel on several questions while principal within group variation was fairly consistent across the questions. The cause of this difference cannot be determined based solely on the results data. Figure 4.35 displays the aggregate mean for the impact of implementation on collective teacher efficacy for each question and each panel group.

Figure 4.35. District A Run Chart of Impact on Collective Teacher Efficacy Means and Standard Deviations for Panel Groups



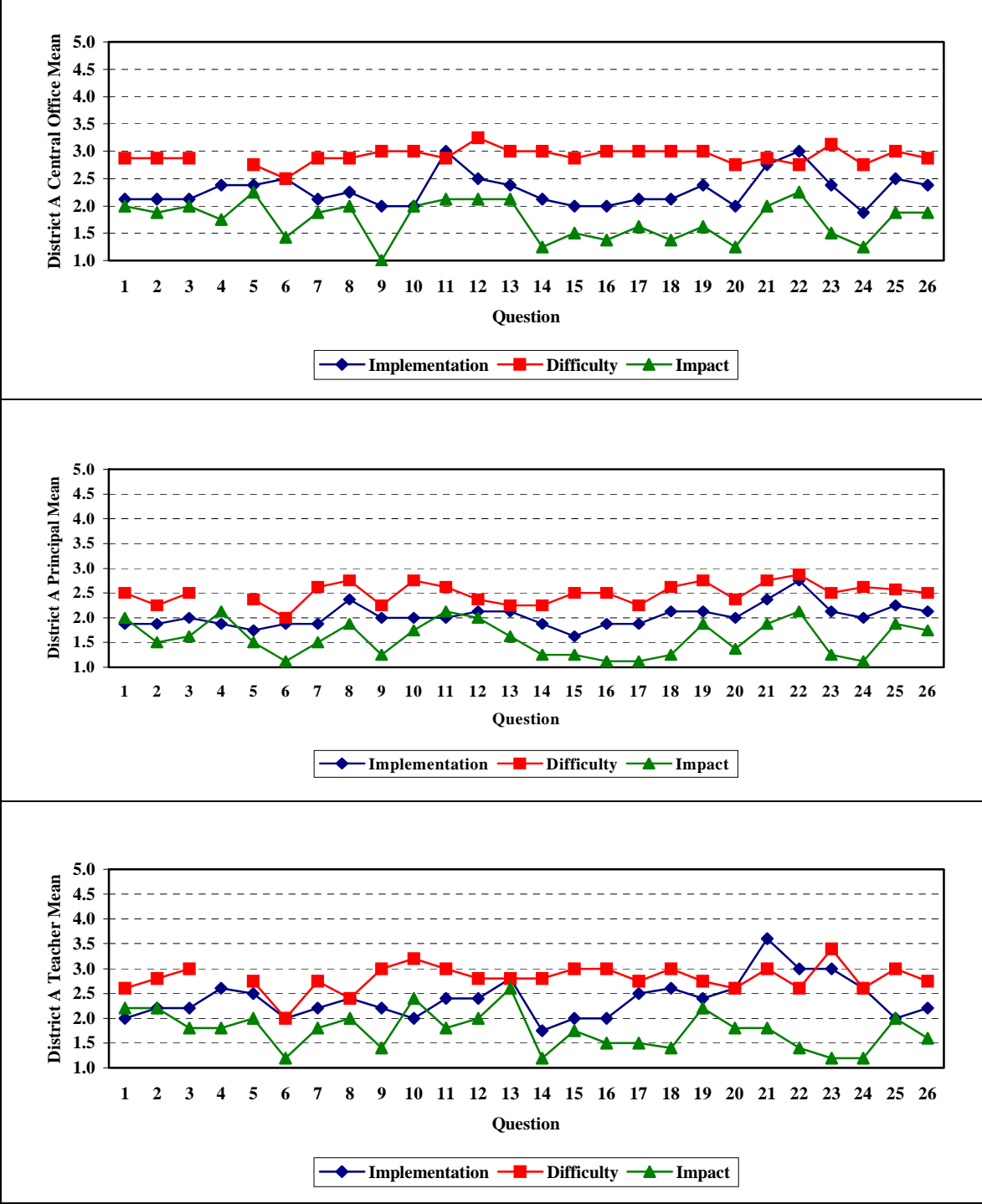
The data on impact reveals that for most questions all panel groups perceived implementation to have a strong to moderate impact on collective teacher efficacy. Although perceptions of all panels align closely with responses that fall between strong to moderate, there is degree of inconsistency across the areas. The strongest perceptions of impact for a Criteria Item appear for Items 4.1 and 4.2 represented by

questions 14 to 17 related to measurement and analysis and information management. The use of data to measure performance and improve instruction appears to make a significant difference in the collective efficacy of teachers. These same Items are also those with the greatest levels of implementation.

This scale had the least variance within each panel although a number of sharp differences occur at question 3, 5, 9, 10, and 25 where the panels have no variance, and the other extreme, questions 16 and 17 where the teacher panel varied in their responses. The lack of variation in the groups indicates high level of consensus between and within the panel groups on the impact of implementation on collective efficacy.

Figure 4.36 compares the aggregate mean for each of the panel group across the three scales, extent of implementation, level of difficulty of implementation, and the impact of implementation on collective teacher efficacy.

Figure 4.36. District A Run Chart of Means for Implementation, Difficulty of Implementation, and Impact of Implementation on Collective Teacher Efficacy for Panel Groups



The mean responses of the central office panel for the extent of implementation fell between 1.88 and 3.00 with most of the responses between 1.88 and 2.50 indicating that this group perceived implementation as well integrated with a systematic approach. Three questions fell outside this band. Questions 21 and 22 related to Item 5.3, Faculty and Staff Well-Being and Satisfaction and question 11 which addresses the extent to which the district has developed strategies to determine key student needs, expectations, and stakeholder satisfaction, had means of 2.75, 3.00, and 3.00 revealing the perception that these areas are only reasonably implemented.

The central office panel considered implementation difficult with the exception of question 6, which had a mean of 2.50. Question 6, which the group perceived easy to implement, relates to Item 1.2 and the area of how district leaders ensure ethical practices in all interactions with students and stakeholders.

The means for the impact of implementation on collective teacher efficacy showed more fluctuation in means. The areas with the greatest impact on collective efficacy with means between 1.00 and 1.63 include: question 6 related to ethical practices; question 9, which addresses the implementation of action plans to achieve objectives; questions 14 through 17 that link to Items 4.1, Measurement and Analysis of Organizational Performance and 4.2, Information Management; question 20 on the alignment of staff training and development with district objectives; and question 24 linked to the alignment of educational programs to district and state goals.

The principal panel showed consistency across the questions for each of the scales. The mean for the extent of implementation ranged from 1.63 to 2.75 with

most of the responses between 1.63 and 2.38. Question 22, related to Item 5.3 fell outside this range agreeing with the central office panel that this area was reasonably implemented. Principals viewed implementation as less difficult with means ranging from 2.00 to 2.88, and most of the responses between 2.25 and 2.75. Like the central office panel, question 6 showed that principals considered this area easy to implement. A similar pattern emerged regarding the impact of implementation on collective efficacy. While the perceptions of principals have fewer extremes and fluctuations, the areas of greatest impact are the same as the central office panel.

The teacher panel means for the extent of implementation ranged from 1.75 to 3.60. Teachers' perceptions of implementation, while mainly at the level of well-integrated with a systematic approach, showed greater fluctuation and lower implementation levels at questions 21, 22, and 23. Teachers perceived implementation as difficult with means from 2.00 to 3.00, but like central office and principals, considered questions 6, related to ethical behavior, as easy to implement. Teacher's perceptions on the impact of implementation on collective efficacy also showed strong to moderate impact across the questions except for question 10, related to leaders' review of performance measures, and question 13, the extent to which the district collects information from students and stakeholders to improve district services.

The level of agreement between the panels on the extent of implementation, level of difficulty, and impact on collective efficacy indicate that this district has an effective systematic approach for all of the Baldrige Criteria Items. This district has fact-based systems and processes for improving the efficiency and effectiveness of

district operations. The approaches developed by this organization are aligned to its goals and objectives and deployed throughout the district with no significant gaps.

Table 4.21 provides the ascending rank order of District A aggregated means and standard deviations for the extent of implementation.

| Table 4. 21 — District A Ranked Aggregate Means and Standard Deviations for Extent of Implementation | | | | | |
|---|-----------------------|-----------|---|-----------------------|-----------|
| Implementation Means | | | Implementation Standard Deviations | | |
| Category.Item - Ques | Implementation | SD | Category.Item - Ques | Implementation | SD |
| 4.1 - 15 | 1.86 | 0.48 | 1.2 - 6 | 2.14 | 0.00 |
| 4.1 - 16 | 1.95 | 0.38 | 1.1 - 1 | 2.00 | 0.32 |
| 4.1 - 14 | 1.95 | 0.39 | 4.1 - 16 | 1.95 | 0.38 |
| 1.1 - 1 | 2.00 | 0.32 | 2.2 - 9 | 2.05 | 0.38 |
| 2.2 - 10 | 2.00 | 0.55 | 4.1 - 14 | 1.95 | 0.39 |
| 2.2 - 9 | 2.05 | 0.38 | 5.1 - 18 | 2.24 | 0.44 |
| 1.1 - 2 | 2.05 | 0.45 | 1.1 - 2 | 2.05 | 0.45 |
| 2.1 - 7 | 2.05 | 0.50 | 1.1 - 3 | 2.10 | 0.45 |
| 1.1 - 3 | 2.10 | 0.45 | 4.1 - 15 | 1.86 | 0.48 |
| 6.1 - 24 | 2.10 | 0.54 | 2.1 - 8 | 2.33 | 0.48 |
| 4.2 - 17 | 2.10 | 0.64 | 2.1 - 7 | 2.05 | 0.50 |
| 1.2 - 6 | 2.14 | 0.00 | 6.1 - 24 | 2.10 | 0.54 |
| 5.2 - 20 | 2.14 | 0.57 | 6.2 - 26 | 2.24 | 0.54 |
| 1.2 - 5 | 2.15 | 0.58 | 2.2 - 10 | 2.00 | 0.55 |
| 5.1 - 18 | 2.24 | 0.44 | 5.1 - 19 | 2.29 | 0.56 |
| 6.2 - 26 | 2.24 | 0.54 | 5.2 - 20 | 2.14 | 0.57 |
| 1.2 - 4 | 2.24 | 0.89 | 1.2 - 5 | 2.15 | 0.58 |
| 5.1 - 19 | 2.29 | 0.56 | 4.2 - 17 | 2.10 | 0.64 |
| 6.2 - 25 | 2.32 | 0.75 | 3.2 - 12 | 2.33 | 0.66 |
| 2.1 - 8 | 2.33 | 0.48 | 3.2 - 13 | 2.38 | 0.67 |
| 3.2 - 12 | 2.33 | 0.66 | 5.3 - 22 | 2.90 | 0.70 |
| 3.2 - 13 | 2.38 | 0.67 | 6.2 - 25 | 2.32 | 0.75 |
| 6.1 - 23 | 2.43 | 0.75 | 6.1 - 23 | 2.43 | 0.75 |
| 3.1 - 11 | 2.48 | 0.81 | 3.1 - 11 | 2.48 | 0.81 |
| 5.3 - 21 | 2.81 | 0.81 | 5.3 - 21 | 2.81 | 0.81 |
| 5.3 - 22 | 2.90 | 0.70 | 1.2 - 4 | 2.24 | 0.89 |

The ranking of the means for District A shows that Item 4.1, Measurement and Analysis of Organizational Performance, is perceived to have the greatest extent of implementation. Item 1.1 represented by questions 1 through 3, Organizational Leadership, and Item 2.2 represented by questions 9 and 10, Strategy Deployment are also implemented at the well-integrated and systematic level. In this district, the Items most deployed in the organization relate to the use of data; the establishment and communication of core values; the degree to which leaders review performance; and the deployment of action plans to meet objectives with key performance indicators for tracking progress of those action plans. This finding strongly supports the Baldrige Criteria framework, which identifies leadership and strategic planning supported by information analysis as primary drivers of organizational performance.

Only two areas fell below a mean of 2.50, questions 21 and 22 linking to Item 5.3, Faculty and Staff Well-Being and Satisfaction and indicating that this is one area that may need more time or better processes before reaching full deployment. Table 4.22 provides the ascending rank order District A aggregated means and standard deviations for the difficulty of implementation.

| Table 4. 22 — District A Ranked Aggregate Means and Standard Deviations for Difficulty of Implementation | | | | | |
|---|-------------------|-----------|---------------------------------------|-------------------|-----------|
| Difficulty Means | | | Difficulty Standard Deviations | | |
| Category.Item - Ques | Difficulty | SD | Category.Item - Ques | Difficulty | SD |
| 1.2 - 6 | 2.19 | 0.68 | 5.3 - 21 | 2.85 | 0.37 |
| 5.2 - 20 | 2.57 | 0.60 | 2.2 - 10 | 2.95 | 0.38 |
| 1.2 - 5 | 2.60 | 0.60 | 3.1 - 11 | 2.81 | 0.40 |
| 1.1 - 2 | 2.62 | 0.59 | 5.3 - 22 | 2.76 | 0.44 |
| 4.2 - 17 | 2.65 | 0.49 | 4.1 - 15 | 2.75 | 0.44 |
| 1.1 - 1 | 2.67 | 0.48 | 2.1 - 8 | 2.71 | 0.46 |
| 3.2 - 13 | 2.67 | 0.48 | 3.2 - 13 | 2.67 | 0.48 |
| 4.1 - 14 | 2.67 | 0.58 | 1.1 - 1 | 2.67 | 0.48 |
| 6.1 - 24 | 2.67 | 0.48 | 6.1 - 24 | 2.67 | 0.48 |
| 6.2 - 26 | 2.70 | 0.57 | 4.2 - 17 | 2.65 | 0.49 |
| 2.1 - 8 | 2.71 | 0.46 | 5.1 - 18 | 2.85 | 0.49 |
| 2.2 - 9 | 2.71 | 0.56 | 6.2 - 25 | 2.84 | 0.50 |
| 2.1 - 7 | 2.75 | 0.55 | 5.1 - 19 | 2.84 | 0.50 |
| 4.1 - 15 | 2.75 | 0.44 | 1.1 - 3 | 2.76 | 0.54 |
| 1.1 - 3 | 2.76 | 0.54 | 2.1 - 7 | 2.75 | 0.55 |
| 5.3 - 22 | 2.76 | 0.44 | 2.2 - 9 | 2.71 | 0.56 |
| 4.1 - 16 | 2.80 | 0.62 | 6.2 - 26 | 2.70 | 0.57 |
| 3.1 - 11 | 2.81 | 0.40 | 4.1 - 14 | 2.67 | 0.58 |
| 3.2 - 12 | 2.81 | 0.68 | 6.1 - 23 | 2.95 | 0.59 |
| 5.1 - 19 | 2.84 | 0.50 | 1.1 - 2 | 2.62 | 0.59 |
| 6.2 - 25 | 2.84 | 0.50 | 5.2 - 20 | 2.57 | 0.60 |
| 5.1 - 18 | 2.85 | 0.49 | 1.2 - 5 | 2.60 | 0.60 |
| 5.3 - 21 | 2.85 | 0.37 | 4.1 - 16 | 2.80 | 0.62 |
| 2.2 - 10 | 2.95 | 0.38 | 3.2 - 12 | 2.81 | 0.68 |
| 6.1 - 23 | 2.95 | 0.59 | 1.2 - 6 | 2.19 | 0.68 |

As noted in the table, difficulty of implementation reveals that except for question 6, mean 2.19, the mean shows that implementation as difficult across the questions. The remaining means only differ by .35 from the top to the bottom of the ranking making it difficult to identify any specific causal factors related to any one area. These areas of the Baldrige Criteria were difficult to implement, but the district has succeeded in doing so as indicated in the extent of implementation noted in previous analyses.

Table 4.23 provides the District A aggregated ascending rank order of means and standard deviations for the impact of implementation on collective teacher efficacy.

| Table 4.23 — District A Ranked Aggregate Means and Standard Deviations for Impact of Implementation on Collective Teacher Efficacy | | | | | |
|---|---------------|-----------|-----------------------------------|---------------|-----------|
| Impact Means | | | Impact Standard Deviations | | |
| Category.Item - Ques | Impact | SD | Category.Item - Ques | Impact | SD |
| 4.1 - 15 | 1.86 | 0.51 | 1.2 - 5 | 2.15 | 0.00 |
| 4.1 - 14 | 1.95 | 0.44 | 2.2 - 9 | 2.05 | 0.40 |
| 4.1 - 16 | 1.95 | 0.57 | 6.1 - 24 | 2.10 | 0.40 |
| 1.1 - 1 | 2.00 | 0.50 | 1.2 - 6 | 2.14 | 0.44 |
| 2.2 - 10 | 2.00 | 0.45 | 4.1 - 14 | 1.95 | 0.44 |
| 1.1 - 2 | 2.05 | 0.51 | 6.2 - 26 | 2.24 | 0.44 |
| 2.1 - 7 | 2.05 | 0.46 | 1.1 - 3 | 2.10 | 0.45 |
| 2.2 - 9 | 2.05 | 0.40 | 2.2 - 10 | 2.00 | 0.45 |
| 1.1 - 3 | 2.10 | 0.45 | 1.2 - 4 | 2.24 | 0.45 |
| 4.2 - 17 | 2.10 | 0.60 | 2.1 - 7 | 2.05 | 0.46 |
| 6.1 - 24 | 2.10 | 0.40 | 5.1 - 18 | 2.24 | 0.48 |
| 1.2 - 6 | 2.14 | 0.44 | 6.1 - 23 | 2.43 | 0.48 |
| 5.2 - 20 | 2.14 | 0.68 | 1.1 - 1 | 2.00 | 0.50 |
| 1.2 - 5 | 2.15 | 0.00 | 2.1 - 8 | 2.33 | 0.50 |
| 1.2 - 4 | 2.24 | 0.45 | 1.1 - 2 | 2.05 | 0.51 |
| 5.1 - 18 | 2.24 | 0.48 | 4.1 - 15 | 1.86 | 0.51 |
| 6.2 - 26 | 2.24 | 0.44 | 6.2 - 25 | 2.32 | 0.55 |
| 5.1 - 19 | 2.29 | 0.65 | 4.1 - 16 | 1.95 | 0.57 |
| 6.2 - 25 | 2.32 | 0.55 | 3.2 - 12 | 2.33 | 0.59 |
| 2.1 - 8 | 2.33 | 0.50 | 3.2 - 13 | 2.38 | 0.59 |
| 3.2 - 12 | 2.33 | 0.59 | 3.1 - 11 | 2.48 | 0.59 |
| 3.2 - 13 | 2.38 | 0.59 | 4.2 - 17 | 2.10 | 0.60 |
| 6.1 - 23 | 2.43 | 0.48 | 5.3 - 21 | 2.81 | 0.62 |
| 3.1 - 11 | 2.48 | 0.59 | 5.3 - 22 | 2.90 | 0.63 |
| 5.3 - 21 | 2.81 | 0.62 | 5.1 - 19 | 2.29 | 0.65 |
| 5.3 - 22 | 2.90 | 0.63 | 5.2 - 20 | 2.14 | 0.68 |

For impact on collective efficacy, all of the means except for questions 21 and 22 fell below 2.50 indicating that all of the areas had a strong to moderate impact. Questions 21 and 22 link to Item 5.3 on Faculty and Staff Well-Being and Satisfaction do not appear to be as well deployed in the district and are at the lowest or most difficult to implement for this district. This area may currently have gaps in or inconsistent deployment across the organization.

Nine out of ten of the areas with the strongest impact on collective efficacy are also the areas with the greatest extent of implementation. Of those questions with the greatest implementation and strongest impact, four are also more difficult to implement. It appears that the panel groups in District A perceive that the implementation of an integrated management system using the Baldrige Criteria framework has a moderate to strong impact on collective teacher efficacy. There is a consistent trend which suggests that the greater the implementation of the integrated management system using the Baldrige Criteria framework the greater the impact of collective teacher efficacy. This supports the hypothesis that systematic implementation of the Baldrige Criteria framework can have a major impact on collective teacher efficacy in all areas of organizational effectiveness.

District B Results and Analysis

Item 1.1 Organizational Leadership. Questions 1 through 3 provide data reflecting participant perceptions related to how senior leaders provide organizational leadership by: establishing and deploying core values and performance expectations; creating an environment that promotes ethical behavior, equity for students,

empowerment, and innovation; reviewing and assessing performance data and communicating findings and acting on those findings. Table 4.24 displays District B panel group and aggregate data for questions 1 through 3.

| Table 4.24 —Research Question (RQ) 2 District B between Group and within Group Data for Questions 1-3 | | | | | | | | | |
|--|----------------|------|----|------------------------------|-----|----|---------------------------------------|------|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 1. To what extent have district leaders established core values and performance expectations? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.43 | .53 | | 2.86 | .38 | | 1.29 | .49 | |
| Principals | 1.88 | .83 | | 2.75 | .71 | | 1.50 | 1.07 | |
| Teachers | 2.33 | .52 | | 2.83 | .41 | | 1.50 | .55 | |
| District Aggregate | 1.86 | .73 | | 2.81 | .51 | | 1.43 | .75 | |
| 2. To what extent have district leaders communicated the core values and performance expectations? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.86 | .69 | | 2.43 | .79 | | 1.43 | 1.07 | |
| Principals | 2.38 | 1.51 | | 2.13 | .64 | | 1.50 | 1.07 | |
| Teachers | 2.00 | 0 | | 2.00 | 0 | | 2.00 | .89 | |
| District Aggregate | 2.10 | 1.00 | | 2.19 | .60 | | 1.62 | .92 | |
| 3. To what extent have district leaders reviewed district performance to assess progress of goals? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.29 | .49 | | 2.43 | .53 | | 1.14 | .38 | |
| Principals | 1.50 | .76 | | 2.25 | .46 | | 1.50 | .76 | |
| Teachers | 1.83 | .75 | | 2.50 | .55 | | 1.83 | .75 | |
| District Aggregate | 1.52 | .68 | | 2.38 | .50 | | 1.48 | .68 | |

Question 1 reveals that central office and teachers reached consensus regarding the extent of implementation with central office perceiving implementation at a higher level. All panel groups agreed that implementation was difficult with the least variance among the central office ($SD = .38$). Between group consensus was also reached on the strong impact of implementation on collective teacher efficacy

with central office showing the least variance ($SD = .49$) and principals the greatest variance ($SD = 1.07$).

For question 2, the panels did not reach between group consensus for any of the scales. Although the central office panel reached consensus across all of the scales agreeing that implementation was difficult but had a strong impact on collective teacher efficacy, there was variance in the responses for implementation ($SD = .69$), difficulty ($SD = .79$), and impact ($SD = .79$). Principals reached consensus on the difficulty and impact of implementation but with a dispersion of responses, especially for impact ($SD = 1.07$). Teachers agreed unanimously on the extent of implementation and difficulty of implementation but varied between strong to limited impact on collective efficacy.

Question 3 shows that all panels reached within group consensus on the extent of implementation, but teachers perceived that this area was well-integrated and implemented with a systematic approach while central office and principals perceived the extent of implementation as fully integrated with very strong fact based cycles of improvement. Between group consensus was reached on the level of difficulty of implementation with little variance in responses (central office, $SD = .53$; principals, $SD = .46$; teachers, $SD = .55$). For impact on collective teacher efficacy central office and principals reached consensus on strong impact, but teacher responses varied between strong and limited impact.

For Item 1.1, the central office panel group showed more consistent consensus with the least variance for each question and across the scales. The greatest consensus between the panels occurred in level of difficulty of implementation.

Item 1.2 Public Responsibility and Citizenship. Questions 4 through 6 provide data reflecting participant perceptions related to how the organization fulfills its public responsibility and practices good citizenship, and how senior leaders, as well as faculty and staff, promote good citizenship by actively identifying and supporting key communities supporting the organization's mission and core values. Table 4.25 displays District B panel group and aggregate data for questions 4 through 6.

| Table 4.25 — RQ 2 District B between Group and within Group Data for Questions 4-6 | | | | | | | | | |
|---|----------------|------|----|--|-----|----|---|------|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement 2. Systematic approach, well integrated and implemented 3. Systematic approach, reasonably implemented 4. Systematic approach, early stages of planning and implementation 5. No systematic approach 6. Not observed (NO) | | | | 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | | 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 4. To what extent have district leaders examined the changing needs and capabilities of the district to ensure continuous improvement? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.71 | .76 | | 2.71 | .49 | | 1.29 | .49 | |
| Principals | 2.00 | .93 | | 2.50 | .53 | | 1.88 | .64 | |
| Teachers | 2.00 | .63 | | 2.67 | .52 | | 2.00 | .63 | |
| District Aggregate | 1.90 | .77 | | 2.62 | .50 | | 1.71 | .64 | |
| 5. To what extent have district leaders facilitated the use of district resources (e.g., facilities, extended outreach programs, community education, etc.) for the community? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.71 | 1.11 | | 2.83 | .41 | 1 | 2.60 | .89 | 2 |
| Principals | 2.00 | .76 | | 2.88 | .64 | | 2.50 | 1.07 | |
| Teachers | 2.33 | .52 | | 2.83 | .41 | | 2.67 | .52 | |
| District Aggregate | 2.33 | .86 | | 2.85 | .49 | 1 | 2.58 | .84 | 2 |
| 6. To what extent have district leaders ensured ethical practices in all interactions with students and stakeholders? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.86 | .69 | | 2.29 | .49 | | 1.86 | .69 | |
| Principals | 1.63 | .52 | | 2.38 | .52 | | 1.75 | .71 | |
| Teachers | 2.17 | .41 | | 2.33 | .52 | | 1.83 | .98 | |
| District Aggregate | 1.86 | .57 | | 2.33 | .48 | | 1.81 | .75 | |

Question 4 shows between group consensus reached only on the level of difficulty of implementation, which was perceived as difficult with little variance in responses for each panel ($SD = .49$ to $.53$). Within group consensus was reached in each panel for the impact on collective teacher efficacy, but central office and principals saw impact as strong while teachers perceived it as moderate.

For question 5, the teacher panel reached consensus on the extent of implementation with little variance ($SD = .52$), but the central office and principal panel responses varied on the scale between 1 and 4 with the greatest variance in the central office panel ($SD = 1.11$). The panels reached between group consensus on the level of difficulty of implementation with the least variance in the central office and teacher panels ($SD = .41$). Each panel concurred on the limited impact on collective teacher efficacy with two “not observed” responses in central office and large variance in the principal panel ($SD = 1.07$).

The panels reached consensus regarding the extent and difficulty of implementation for question 6 perceiving this area as well-integrated with a systematic approach and easy to implement. Central office and principals reached within group consensus on the moderate impact on collective efficacy while teachers agreed that the impact was strong. Although each panel reached within group consensus, the responses related to impact varied in each of the panels (central office, $.69$; principals, $SD = .71$; teachers, $SD = .98$).

The responses to the questions related to Item 1.2 show that the panels agree that implementation is difficult, but there is variance in the extent of implementation for questions 4 and 5. Although each panel reached within group consensus on the

impact of implementation of this item on collective efficacy, between group consensus was not reached for any of the questions.

Item 2.1 Strategy Development. Questions 7 and 8 provide data reflecting participant perceptions related to how the organization develops its strategic objectives considering key factors that may influence future success and balancing the needs of students and stakeholders. Table 4.26 displays District B panel group and aggregate data for questions 7 and 8.

| Table 4.26 — RQ 2 District B between Group and within Group Data for Questions 7-8 | | | | | | | | | |
|---|----------------|------|----|--|-----|----|---|-----|----|
| <i>Implementation</i> | | | | <i>Difficulty of Implementation</i> | | | <i>Impact on Collective Teacher Efficacy</i> | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement 2. Systematic approach, well integrated and implemented 3. Systematic approach, reasonably implemented 4. Systematic approach, early stages of planning and implementation 5. No systematic approach 6. Not observed (NO) | | | | 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | | 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 7. To what extent have district leaders facilitated a planning process that involves all stakeholders? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.00 | 1.15 | | 3.14 | .90 | | 1.83 | .98 | 1 |
| Principals | 2.25 | .46 | | 3.13 | .64 | | 2.38 | .92 | |
| Teachers | 2.00 | 1.10 | | 2.83 | .75 | | 1.83 | .75 | |
| District Aggregate | 2.10 | .89 | | 3.05 | .74 | | 2.05 | .89 | 1 |
| 8. To what extent have district leaders considered student and stakeholder needs, expectations, and opportunities in the planning process? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.71 | .76 | | 2.86 | .69 | | 1.57 | .79 | |
| Principals | 2.00 | .53 | | 2.88 | .99 | | 2.13 | .83 | |
| Teachers | 2.50 | 1.05 | | 2.83 | .41 | | 1.67 | .82 | |
| District Aggregate | 2.05 | .80 | | 2.86 | .73 | | 1.81 | .81 | |

Responses for question 7 show the principal and teacher panels reaching within group consensus on implementation, difficulty, and impact with the least variance in the principal group on the extent of implementation ($SD = .46$). The central office panel responses reflect lack of consensus regarding all the scales as evidenced by the variance of responses (implementation, $SD = 1.15$; difficulty, $SD = .90$; impact, $SD = .98$). The district did not reach between group consensus for any of the scales.

Question 8 responses show between group consensus on the difficulty of implementation and within group consensus on the impact of implementation on collective efficacy as it relates to the planning process and the extent to which district leaders consider student and stakeholder needs, expectations, and opportunities. Principals agreed on the level of implementation, but teachers and central office responses varied across the implementation scale from 1 to 4 (central office, $SD = .76$; teachers, $SD = 1.05$).

Item 2.2 Strategy Deployment. Questions 9 and 10 provide data reflecting participant perceptions related to how the organization converts strategic objectives into action plans, especially the extent of deployment throughout the organization as evidenced by alignment of processes to goals and objectives. Table 4.27 displays District B panel group and aggregate data for questions 9 and 10.

| Table 4.27 — RQ 2 District B between Group and within Group Data for Questions 9-10 | | | | | | | | | |
|---|----------------|------|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 9. To what extent have district leaders developed and implemented action plans to achieve objectives? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.57 | .53 | | 3.43 | .53 | | 1.71 | .49 | |
| Principals | 2.25 | .89 | | 3.25 | .71 | | 2.38 | .92 | |
| Teachers | 2.67 | 1.03 | | 2.50 | .55 | | 1.67 | .82 | |
| District Aggregate | 2.14 | .91 | | 3.10 | .70 | | 1.95 | .80 | |
| 10. To what extent have district leaders identified performance measures for tracking the progress of action plans? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.14 | .38 | | 3.29 | .76 | | 1.71 | .49 | |
| Principals | 1.75 | .46 | | 2.75 | .46 | | 2.13 | .64 | |
| Teachers | 2.83 | .75 | | 3.00 | .89 | | 1.67 | .82 | |
| District Aggregate | 1.86 | .85 | | 3.00 | .71 | | 1.86 | .65 | |

Question 9 shows consensus within and between groups on the extent of implementation with the greatest variance among teachers ($SD = 1.03$). Central office and principals agreed that implementation was difficult while teachers were evenly divided between easy and difficult. Each group reached within group consensus on the impact on collective efficacy with teachers perceiving impact as strong, and central office and principals as moderate.

Question 10 showed within group consensus on the extent of implementation, but central office perceived it as a scale item 1, principals at 2, and teachers at 3. Only the principal panel reached consensus that implementation was difficult. Both the central office and teachers had responses across the scale from easy to very difficult. Again, each group reached within group consensus on the impact on

collective efficacy with teachers perceiving impact as strong, and central office and principals as moderate.

Item 3.1 Knowledge of Student, Stakeholder, and Market Needs and Expectations.

Question 11 provides data reflecting participant perceptions related to the organization's key processes for determining knowledge about the requirements, expectations, and preferences of both current and future student, stakeholder, and markets. The information gained from these intelligence processes serves to create a climate open to learning and development of all students. Table 4.28 displays District B panel group and aggregate data for question 11.

| Table 4.28 —RQ 2 District B between Group and within Group Data for Question 11 | | | | | | | | | |
|--|----------------|------|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 11. To what extent has the district developed strategies to determine key student needs, expectations, and stakeholder satisfaction? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.71 | 1.38 | | 3.00 | 0 | | 2.00 | .58 | |
| Principals | 2.25 | .71 | | 2.63 | .52 | | 2.38 | .74 | |
| Teachers | 2.33 | .52 | | 3.00 | 0 | | 1.83 | .75 | |
| District Aggregate | 2.43 | .93 | | 2.86 | .36 | | 2.10 | .70 | |

The central office panel did not concur on the extent of implementation with responses from a scale ranging from 1 to 4 ($SD = 1.38$). The principal and teacher panels did agree on implementation with responses dispersed across the scales with standard deviations of .71 and .52. The aggregate data also reflected no agreement. Strong consensus that this area was difficult to implement emerged within each group and

across the panels with the highest agreement and no variance. The aggregate data also reflected high agreement (78.3%) and less variance ($SD = .43$). All panel groups concurred on the moderate impact on collective efficacy with the least variation within central office ($SD = .58$) and the greatest within the principal ($SD = .74$) and teacher ($SD = .75$) panels.

Item 3.2 Student and Stakeholder Relationships and Satisfaction. Questions 12 and 13 provide data reflecting participant perceptions related to how the organization builds relationships to retain students and enhance student learning. This Item also examines the organization's ability to deliver services that satisfy students and stakeholders as well developing new opportunities to meet those needs. Table 4.29 displays District B panel group and aggregate data for questions 12 and 13.

| Table 4.29 —RQ 2 District B between Group and within Group Data for Questions 12-13 | | | | | | | | | |
|--|----------------|------|----|------------------------------|-----|----|---------------------------------------|------|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 12. To what extent has the district built relationships to enhance student performance and retain students? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.67 | .82 | 1 | 3.00 | 0 | 1 | 1.67 | .52 | 1 |
| Principals | 2.25 | .89 | | 3.00 | .53 | | 2.13 | .83 | |
| Teachers | 2.33 | .52 | | 3.33 | .52 | | 1.83 | .75 | |
| District Aggregate | 2.10 | .79 | 1 | 3.10 | .45 | 1 | 1.90 | .72 | 1 |
| 13. To what extent has the district collected information from students and stakeholders to improve the district and its services? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.43 | 1.13 | | 2.67 | .52 | 1 | 1.60 | .89 | 1 |
| Principals | 2.75 | .89 | | 2.75 | .89 | | 2.25 | 1.04 | |
| Teachers | 2.83 | .41 | | 2.50 | .55 | | 1.83 | .41 | |
| District Aggregate | 2.67 | .86 | | 2.65 | .67 | | 1.94 | .85 | 1 |

For question 12, the data from the central office panel indicate variance ($SD = .82$) with one “not observed” response and no consensus on the extent of implementation. The principal and teacher panels agreed that implementation was systematic and well integrated but responses were dispersed across the scale for the principal panel ($SD = .89$). Consensus both within panel groups and across groups showed implementation as difficult to achieve. All panel groups and the aggregate reflected agreement on the moderate impact of this area on collective efficacy.

The principal and teacher panel agreed on the extent of implementation for question 13, which had a “systematic approach, reasonably implemented.” The central office panels had a wide dispersion of responses ($SD = 1.13$). Regarding the difficulty of implementation, central office concurred that it was “difficult,” principals varied from easy to very difficult ($SD = .89$), and teachers were almost evenly divided between easy and difficult to implement. The central office (52.4% and $SD = .66$) and teacher ($SD = .41$) panel concurred on the moderate impact on collective efficacy. No agreement emerged from central office ($SD = .89$) or principals ($SD = 1.04$).

The perception of the extent of implementation varied within and across each panel group for both questions. Although consensus was reached on the difficulty of implementing processes to build relationships, no clear indication emerged regarding the level of difficulty in collecting information to improve services.

Item 4.1 Measurement and Analysis of Organizational Performance. Questions 14 through 16 provide data reflecting participant perceptions related to the mechanical processes for data collection as well as the analytical processes used to interpret the data that is then deployed at all levels of the organization to improve operational and

student performance. Table 4.30 displays District B panel group and aggregate data for questions 14 through 16.

| Table 4.30 — RQ 2 District B between Group and within Group Data for Questions 14-16 | | | | | | | | | |
|---|----------------|------|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 14. To what extent has the district gathered and integrated data and information from many sources to support key processes and action plans? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.43 | .53 | | 2.86 | .90 | | 1.71 | .49 | |
| Principals | 2.25 | .71 | | 2.63 | .74 | | 2.25 | .71 | |
| Teachers | 2.33 | 1.21 | | 2.67 | .52 | | 1.83 | .75 | |
| District Aggregate | 2.00 | .89 | | 2.71 | .72 | | 1.95 | .67 | |
| 15. To what extent has the district analyzed data and reviewed district performance as it relates to goals and action plans? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.14 | .38 | | 2.86 | .90 | | 1.14 | .38 | |
| Principals | 1.38 | .74 | | 2.25 | .89 | | 1.50 | .53 | |
| Teachers | 1.83 | 1.17 | | 2.67 | .52 | | 1.67 | .82 | |
| District Aggregate | 1.43 | .81 | | 2.57 | .81 | | 1.43 | .60 | |
| 16. To what extent has the district disaggregated and analyzed data to modify and improve instruction to enhance student achievement? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.00 | 0 | | 2.57 | .53 | | 1.00 | 0 | |
| Principal | 1.13 | .35 | | 2.00 | .76 | | 1.25 | .46 | |
| Teacher | 2.00 | .89 | | 2.50 | .55 | | 1.33 | .52 | |
| District Aggregate | 1.33 | .66 | | 2.33 | .66 | | 1.19 | .40 | |

Central office responses to question 14 show consensus on the extent of implementation at scale item 1 (systematic approach, fully integrated and implemented with very strong fact based cycles of improvement) with little variance ($SD = .53$). The principal panel reached consensus but with some variance ($SD = .71$). The greatest variation in responses came from the teacher panel ($SD = 1.21$). The principal and teacher panels reached consensus agreeing that implementation was “difficult.” The

greatest variance in responses occurred in the central office panel ($SD = .90$). The central office panel agreed on moderate impact on collective efficacy. Principal and teacher responses also agreed on moderate impact with greater variance in both groups (principals, $SD = .71$ and teachers, $SD = .75$).

Consensus occurred within and between groups on the extent of implementation for question 15 varying across the scale with the greatest dispersion within the teacher panel ($SD = 1.17$). Principals and teachers reached consensus agreeing that implementation was “difficult.” All panels reached consensus on a strong impact, with the least variance among central office ($SD = .38$) and the greatest among teachers ($SD = .82$).

Central office and principals agreed on the extent of implementation for question 16. Teacher responses ranged from scale item 1 to 3 resulting in a standard deviation of .89. Central office agreed that implementation was difficult ($SD = .53$) and principals agreed that it was easy ($SD = .76$). The teacher panel was evenly divided between easy and difficult to implement. All groups agreed within and between that implementation had a strong impact on collective efficacy with little variance in any group.

The data for the questions related to Item 3.2 show no consensus regarding the extent of implementation for questions 14 and 16 and considerable variation in responses ($SD = .38$ to 1.21) with the greatest variance within the teacher panels. Difficulty of implementation revealed varying perspective from this area as easy to difficult implement. Overall, panel groups' responses clustered between strong to moderate to impact on collective efficacy for this item.

Item 4.2 Information Management. Question 17 provides data reflecting participant perceptions related to how organizations ensure the quality and availability of data and information for faculty, staff, students, stakeholders, and suppliers or partners. This Item addresses not only the availability of data, its integrity, reliability, accuracy, and confidentiality but also whether the hardware and software is user friendly, reliable, and updated to remain current with educational service needs. Table 4.31 displays District B panel group and aggregate data for question 17.

| Table 4.31 —RQ 2 District B between Group and within Group Data for Question 17 | | | | | | | | | |
|---|----------------|------|----|-------------------------------------|-----|----|--|-----|----|
| <i>Implementation</i> | | | | <i>Difficulty of Implementation</i> | | | <i>Impact on Collective Teacher Efficacy</i> | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 17. To what extent has the district employed an effective system for making data and information available? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.43 | .53 | | 2.71 | .76 | | 1.00 | 0 | |
| Principals | 1.13 | .35 | | 2.13 | .83 | | 1.38 | .52 | |
| Teachers | 2.33 | 1.03 | | 2.33 | .52 | | 1.50 | .55 | |
| District Aggregate | 1.57 | .81 | | 2.38 | .74 | | 1.29 | .46 | |

Central office and principals reached consensus regarding the extent of implementation. The teacher panel responses ranged from 1 to 4 resulting in a standard deviation of 1.03. The teacher panel agreed implementation was difficult with the least variance in responses ($SD = .52$). Central office and principal responses varied between implementation being easy and difficult. All panels reached consensus perceiving a strong impact on collective efficacy.

Item 5.1 Work Systems. Questions 18 and 19 provide data reflecting participant perceptions related to how the organization builds relationships to retain students and enhance student learning. This Item also examines the organization’s ability to deliver services that satisfy students and stakeholders as well developing new opportunities to meet those needs. Table 4.32 displays District B panel group and aggregate data for questions 18 and 19.

| Table 4.32 — RQ 2 District B between Group and within Group Data for Questions 18-19 | | | | | | | | | |
|---|----------------|------|----|------------------------------|-----|----|---------------------------------------|------|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 18. To what extent has the district organized and managed work and jobs to promote cooperation, initiative, innovation, and organizational culture? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.43 | 1.27 | | 3.17 | .41 | 1 | 2.33 | .82 | 1 |
| Principals | 2.25 | .46 | | 2.63 | .52 | | 2.25 | .71 | |
| Teachers | 2.33 | .52 | | 2.83 | .41 | | 2.33 | 1.03 | |
| District Aggregate | 2.33 | .80 | | 2.85 | .49 | 1 | 2.30 | .80 | 1 |
| 19. To what extent has the district motivated faculty and staff to develop and utilize their full potential? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.71 | 1.11 | | 3.00 | .63 | 1 | 1.83 | .98 | 1 |
| Principals | 2.13 | .35 | | 3.00 | .53 | | 2.13 | .83 | |
| Teachers | 3.33 | 1.37 | | 3.50 | .84 | 1 | 2.33 | 1.37 | |
| District Aggregate | 2.67 | 1.06 | | 3.05 | .52 | 2 | 2.10 | 1.02 | 1 |

The data on central office responses ranged across scale items 1 to 4 yielding a standard deviation of 1.27. Principals and teachers reached consensus on the extent of implementation at scale item 2 (systematic approach, well integrated and implemented). Central office, principals, and teachers reached consensus within and among the groups that implementation was “difficult.” The responses regarding the impact on collective

showed principals and teachers agreeing on a moderate impact on collective efficacy.

The greatest variance occurred within the teacher panel ($SD = 1.03$).

Central office ($SD = 1.11$) and teachers ($SD = 1.37$) show the greatest variance in response with no clear indication of the perceptions of the extent of implementation for question 19. Principals did concur on scale item 2 with the least variance in responses ($SD = .35$). Each panel and the aggregate reflected consensus that implementation was difficult with little variance and one member responding, “not observed.” There was no consensus within any panel on the impact of implementation on collective efficacy with responses ranging from scale item 1 to 4 and standard deviations between .83 and 1.37

The responses to this item show that central office and teachers have the greatest variances in responses concerning the extent of implementation and the impact on collective efficacy. Within all panels and the aggregate, consensus was reached on the difficulty of implementation. Impact on collective efficacy had the greatest variance

Item 5.2 Faculty and Staff Education, Training, and Development. Question 20 provides data reflecting participant perceptions related to how the organization’s faculty and staff education and training support the achievement of strategies and objectives. This Item also includes examination of processes for building faculty and staff knowledge, skills, and capabilities that contribute to high performance. Table 4.33 displays District B panel group and aggregate data for question 20.

| Table 4.33 — RQ 2 District B between Group and within Group Data for Question 20 | | | | | | | | | |
|--|----------------|-----|----|-------------------------------------|-----|----|--|-----|----|
| <i>Implementation</i> | | | | <i>Difficulty of Implementation</i> | | | <i>Impact on Collective Teacher Efficacy</i> | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 20. To what extent has the district addressed and delivered faculty and staff education, training, and development that is aligned to district goals, action plans, and student achievement? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.14 | .38 | | 2.57 | .53 | | 1.29 | .49 | |
| Principals | 1.25 | .46 | | 2.25 | .89 | | 1.38 | .58 | |
| Teachers | 1.67 | .82 | | 2.17 | .41 | | 1.67 | .52 | |
| District Aggregate | 1.33 | .58 | | 2.33 | .66 | | 1.43 | .51 | |

The data from this question show within and between group consensus on the extent of implementation at scale item 1 with the greatest variance among the teacher panel ($SD = .82$). The central office panel showed agreement that this item was difficult to implement with little variance ($SD = .53$). Both principal and teacher responses concurred that implementation was easy. The central office and principal panels agreed on strong impact on collective efficacy. The teacher panel reached consensus on moderate impact.

Item 5.3 Faculty and Staff Well-being and Satisfaction. Questions 21 and 22 provide data reflecting participant perceptions related to how the organization maintains a work environment and faculty and staff climate that contributes to the well-being, satisfaction, and motivation of all employees. This Item also examines workplace health, safety, and ergonomics as well as evaluation methods and measures for determining faculty and staff satisfaction and motivation. Table 4.34 displays District B panel group and aggregate data for questions 21 and 22.

| Table 4.34 —RQ 2 District B between Group and within Group Data for Questions 21-22 | | | | | | | | | |
|---|----------------|------|----|--|-----|----|---|------|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement 2. Systematic approach, well integrated and implemented 3. Systematic approach, reasonably implemented 4. Systematic approach, early stages of planning and implementation 5. No systematic approach 6. Not observed (NO) | | | | 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | | 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 21. To what extent has the district ensured workplace health, safety, and ergonomics? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.71 | .76 | | 2.50 | .55 | 1 | 2.14 | .90 | |
| Principals | 2.25 | .46 | | 2.63 | .74 | | 2.25 | .89 | |
| Teachers | 2.67 | .82 | | 2.50 | .55 | | 2.17 | .98 | |
| District Aggregate | 2.52 | .68 | | 2.55 | .60 | 1 | 2.19 | .87 | |
| 22. To what extent has the district employed a system to assess the key factors that affect faculty and staff well-being, satisfaction, and motivation? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.71 | 1.11 | | 3.00 | 0 | 2 | 2.33 | 1.03 | 1 |
| Principals | 2.13 | .35 | | 2.38 | .74 | | 2.00 | .76 | |
| Teachers | 2.33 | .52 | | 2.67 | .52 | | 2.50 | 1.22 | |
| District Aggregate | 2.38 | .74 | | 2.63 | .60 | 2 | 2.25 | .97 | 1 |

The principal and teacher panels reached consensus on the extent of implementation agreeing on a “systematic approach, reasonably implemented” with the greatest variance among teachers ($SD = .82$). Only the principal panel reached consensus on implementation being difficult. The central office and teacher panels were both evenly divided between easy and difficult to implement. Principal panel members concurred on impact as limited, and teachers perceived impact as moderate. All groups had a dispersion of responses as evidenced by standard deviations between .89 and .98. Both principal and teacher responses ranged from strong to no impact with the greatest variance within the teacher panel ($SD = .98$) with principals reaching consensus on limited impact and teachers on moderate impact.

For question 22, principals and teachers reached consensus on the extent of implementation agreeing on scale item 2. The greatest variance occurred in the central office panel ($SD = 1.11$). All panel groups and the aggregate data reveal consensus that implementation was “difficult.” Both principal and teacher panels reached consensus on moderate impact on collective efficacy. Teacher responses varied from strong to no impact ($SD = 1.22$).

Item 6.1 Education Design and Delivery Processes. Questions 23 and 24 provide data reflecting participant perceptions related to how the organization manages the key processes for the design and delivery of educational programs. Table 4.35 displays District B panel group and aggregate data for questions 23 and 24.

| Table 4.35 — RQ 2 District B between Group and within Group Data for Questions 23-24 | | | | | | | | | |
|--|----------------|-----|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 23. To what extent has the district considered student differences when developing educational programs that engage students in active learning? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.73 | .53 | | 3.14 | .69 | | 1.14 | .38 | |
| Principals | 2.13 | .83 | | 2.88 | .64 | | 1.63 | .74 | |
| Teachers | 2.17 | .75 | | 2.50 | .55 | | 1.50 | .55 | |
| District Aggregate | 1.90 | .77 | | 2.86 | .65 | | 1.43 | .60 | |
| 24. To what extent has the district employed a process for developing educational programs aligned to district and state goals? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.14 | .90 | | 3.00 | .82 | | 1.50 | .55 | 1 |
| Principals | 2.00 | .76 | | 2.63 | .92 | | 1.63 | .74 | |
| Teachers | 2.33 | .82 | | 2.50 | .55 | | 1.50 | .55 | |
| District Aggregate | 2.14 | .79 | | 2.86 | .78 | | 1.55 | .60 | 1 |

The principal and teacher panels reached consensus on scale item 2 for the extent of implementation while central office concurred on scale item 1. The principal panel had the greatest variance in responses ($SD = .83$). Central office and principal panel groups data show consensus that implementation was difficult with variance in both groups (central office, $SD = .69$; principals, $SD = .64$). The central office and principal panels reached consensus on the strong impact on collective efficacy with teachers evenly divided between strong and moderate impact.

All panel groups concurred on the extent of implementation at scale item 2 with variance in each group as evidence by standard deviations between .76 and .90. The principal panel group agreed that this item was difficult to implement. The principal panel also reached consensus on the strong impact of implementation on collective efficacy. Both central office and teachers were evenly divided between strong and moderate impact.

The data for this item revealed that most panel members considered implementation as systematic and well-integrated. A strong consensus on the difficulty of implementation also emerged, and in spite of a lack of consensus, the data showed most responses at strong to moderate impact.

Item 6.2 Student Services. Question 25 provides data reflecting participant perceptions related to how the organization manages its key student services. Table 4.36 displays District B panel group and aggregate data for question 25.

| Table 4.36 — RQ 2 District B between Group and within Group Data for Question 25 | | | | | | | | | |
|--|----------------|------|----|------------------------------|-----|----|---------------------------------------|------|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 25. To what extent has the district employed a process to measure effectiveness of the implementation of educational programs? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.29 | 1.38 | | 3.14 | .69 | | 2.17 | 1.17 | 1 |
| Principals | 1.88 | .35 | | 2.75 | .46 | | 2.00 | .53 | |
| Teachers | 2.17 | .41 | | 2.83 | .75 | | 2.00 | .63 | |
| District Aggregate | 2.10 | .83 | | 2.90 | .62 | | 2.05 | .76 | 1 |

The central office responses on the extent of implementation ranged from scale item 1 to 4 ($SD = 1.38$). The principal panel and teacher panel reached consensus agreeing on scale item 2 with little variance. Each panel group reached consensus on the difficulty of implementation at scale item 3, difficult. The principal and teacher panels also reached consensus regarding the moderate impact on collective efficacy, and central office responses ranged from strong to no impact with one “not observed” response.

Item 6.3 Support Processes. Question 26 provides data reflecting participant perceptions related to how the organization manages key processes that support daily operations as an educational organization and faculty and staff delivering services.

Table 4.37 displays District B panel group and aggregate data for question 26.

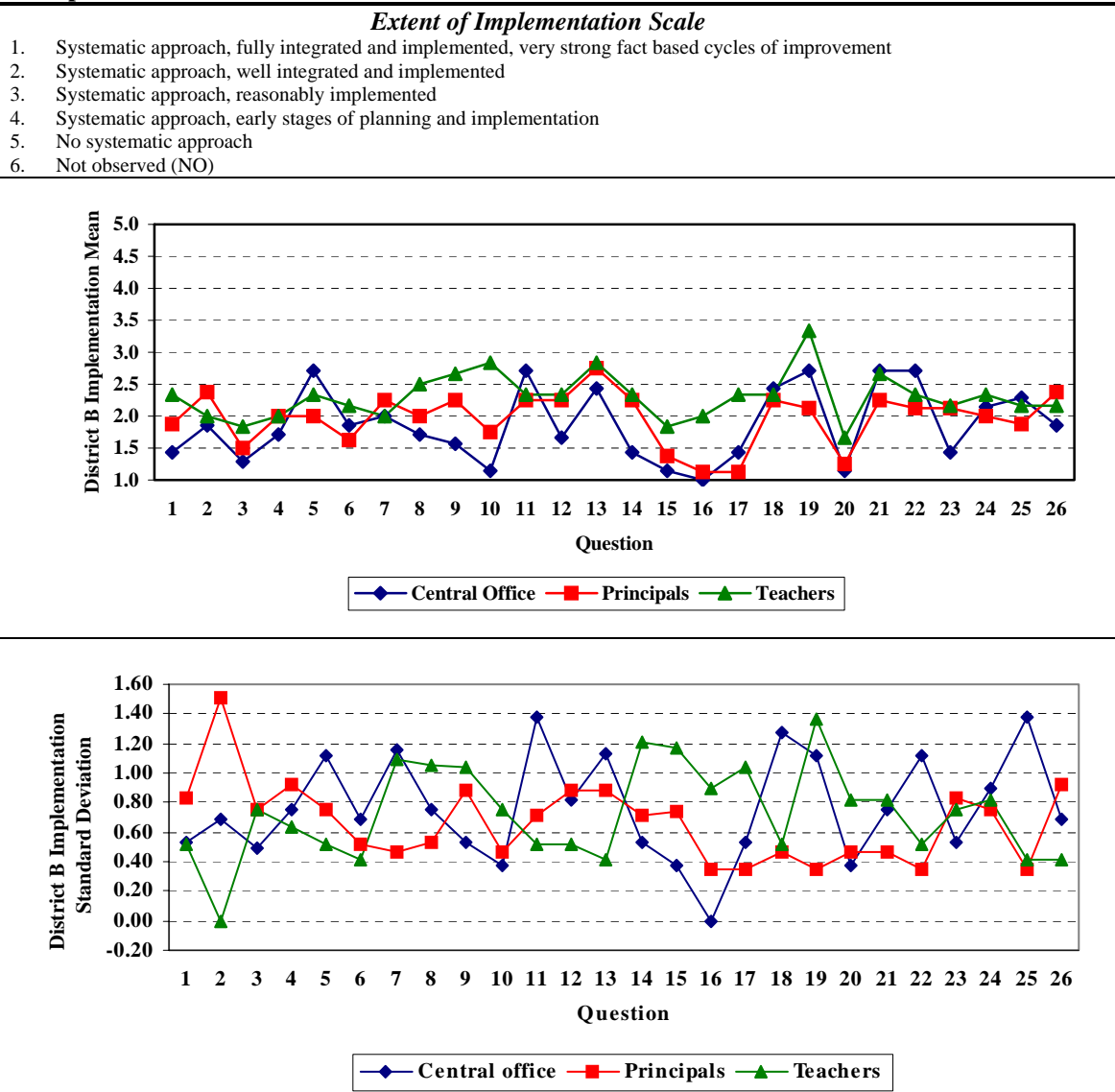
| Table 4.37 — RQ 2 District B between Group and within Group Data for Question 26 | | | | | | | | | |
|--|----------------|-----|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 26. To what extent has the district provided support processes that ensure success of educational programs and student services? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 1.86 | .69 | | 2.86 | .69 | | 1.86 | .69 | |
| Principals | 2.38 | .92 | | 2.75 | .46 | | 2.25 | .89 | |
| Teachers | 2.17 | .41 | | 2.83 | .75 | | 2.33 | .82 | |
| District Aggregate | 2.14 | .73 | | 2.81 | .60 | | 2.14 | .79 | |

The data from this question reveal that panel groups agree that implementation has a systematic approach that is well integrated; however, even with consensus variation exists within the principal panel ($SD = .92$). All panel groups reached consensus on the difficulty of implementation (difficult) and the impact on collective efficacy (moderate).

District B Summary

The results for District B revealed that perceptions of the three panel groups, central office, principals, and teachers, largely agree that implementation of the Items of the Baldrige Education Criteria is systematic and well-integrated. Implementing the Criteria, while difficult, has a strong to moderate impact on collective teacher efficacy. The patterns and trends exhibited in the data can best be visualized by the following run charts that show the mean response and standard deviations for each panel group across the 26 questions linked to the Baldrige Criteria Items. Figure 4.37 displays the aggregate means and standard deviations for the extent of implementation for each question and each panel group in District B.

Figure 4.37. District B Run Chart of Implementation Means and Standard Deviations for Panel Groups



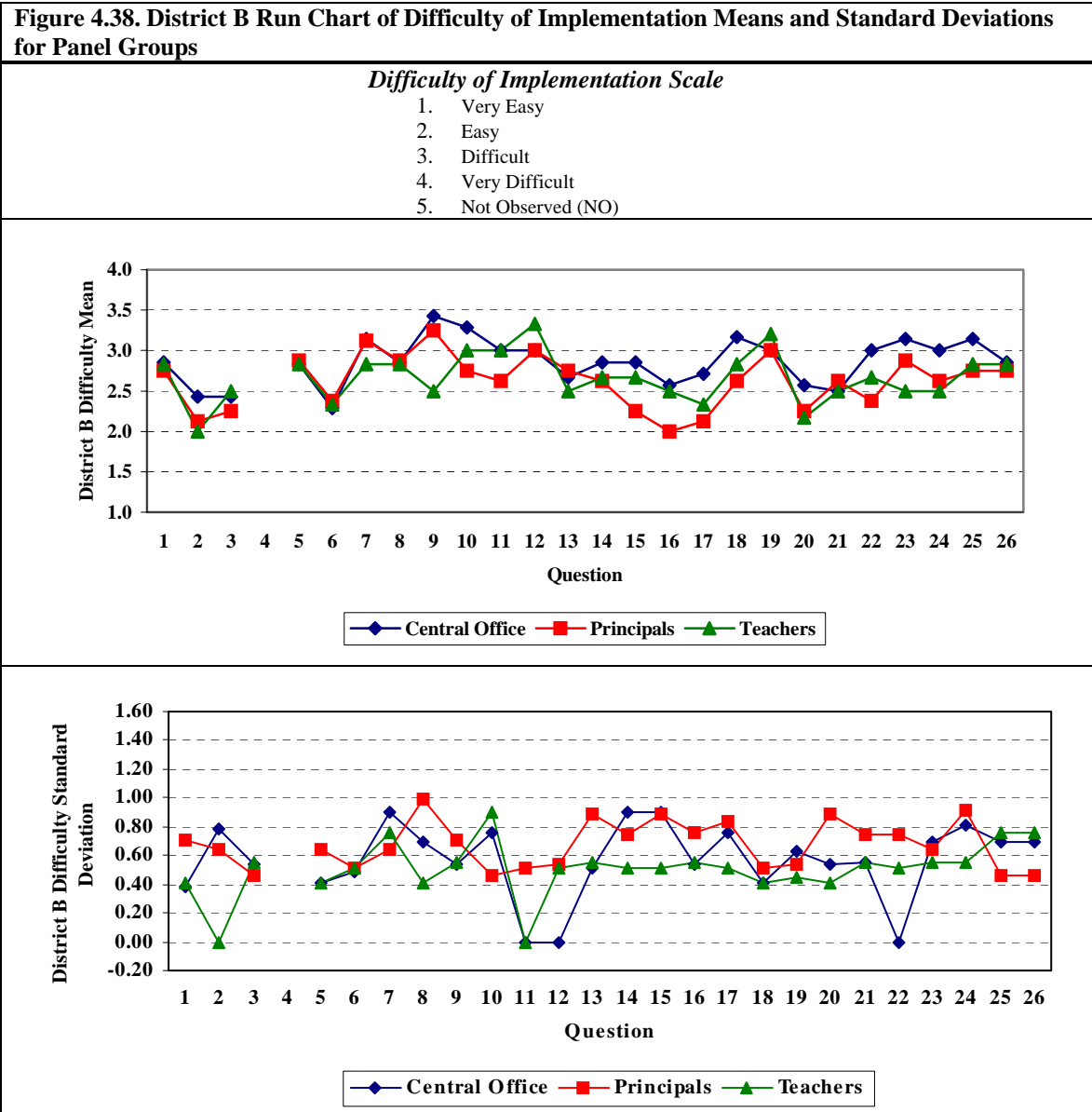
The chart demonstrates the level of agreement between each of the panel groups in the perception of the extent of implementation of the areas linked to the Baldrige Criteria. The strongest consensus appears in questions 4, 7, 11, 18, 24, 25, and 26. Question 4 relates to the extent to which district leaders examine the changing needs and capabilities of the district to ensure continuous improvement.

Question 7 addresses how senior leaders facilitate a planning process that involves all stakeholders. Question 11 focuses on developing strategies to determine key student needs, expectations, and stakeholder satisfaction. Question 18 deals with the work systems and how the district promotes cooperation, initiative, innovation, and organizational culture. Question 24 considers how the organization employs processes for developing educational programs aligned to district and state goals, and question 25 examines how the district measures the effectiveness of the implementation of educational programs. Finally, question 26 addresses the districts processes that provide support to ensure success of educational programs and student services.

Figure 4.37 highlights the broad range of perspectives related to the extent of implementation. None of the panels followed a consistent pattern across the questions, which may result from a lack of an effective systematic approach or gaps in the deployment. Overall, teachers, perceived a lower level of implementation as compared to principals and central office indicating early stages of alignment or deployment of practices to the classroom level.

The chart representing the standard deviations for each question reveals that while there is agreement, variance in responses exists within groups in the district. Principal responses have the least fluctuations across the areas, and the variance among teachers and central office fluctuate from a standard deviation of 0 to over 1.40 pointing again to possible gaps in deployment in those areas with the greatest dispersion of responses.

Figure 4.38 displays the aggregate means and standard deviations for the difficulty of implementation for each question and each panel group in District B.

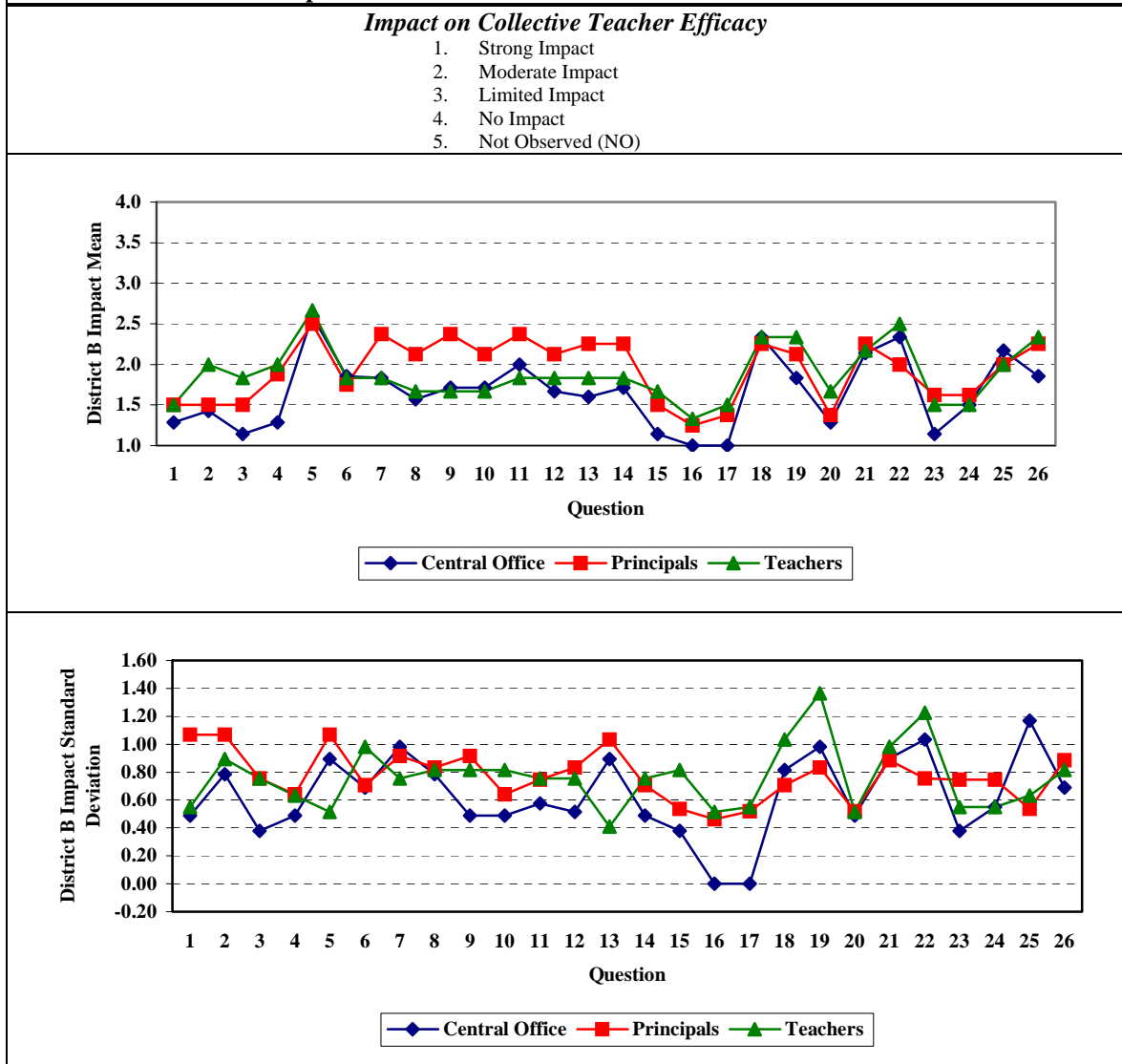


The run chart for the level of difficulty of implementation of the Criteria Items shows greater alignment between the panel groups and agreement that each area was difficult to implement except for questions 2, 3, 6, 11, and 20. Principals often considered implementation easier than did the other panel groups. For instance principals saw question 16 related to the disaggregation of data to modify and improve instruction as easy to implement, which may stem from the fact that discussions of student data have become a regular and routine component of the organizational culture on the campuses. What remains unanswered is whether the difficulty is a function of time or the extent of focus placed on a particular area. For instance, is implementation difficult because it involves a significant change in management practices, or is it difficult because we do not have a systemic approach to drive effective deployment?

The standard deviations illustrate the variance between the panels. Both central office and teachers agreed unanimously within the panel on several questions while principals had none. Although variance exists within the groups, there appears to be greater consistency in each of the panels, especially principals.

Figure 4.39 displays the aggregate means and standard deviations for the impact of implementation on collective teacher efficacy for each question and each panel group in District B.

Figure 4.39. District B Run Chart of Impact on Collective Teacher Efficacy Means and Standard Deviations for Panel Groups



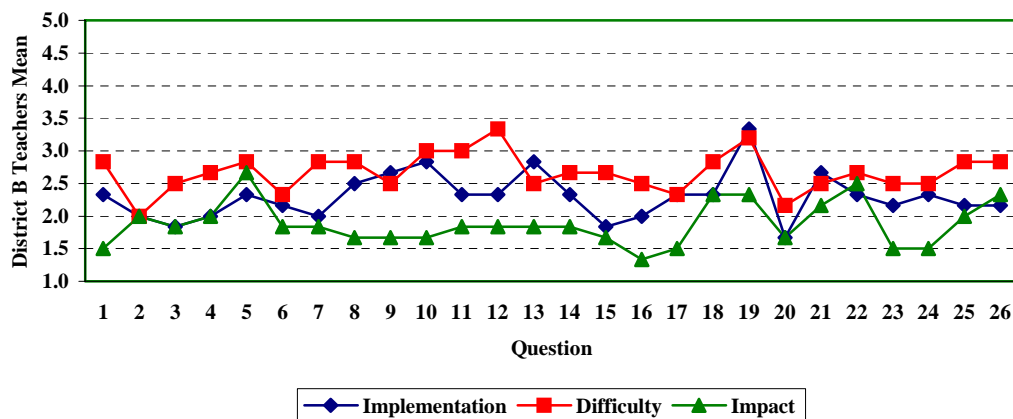
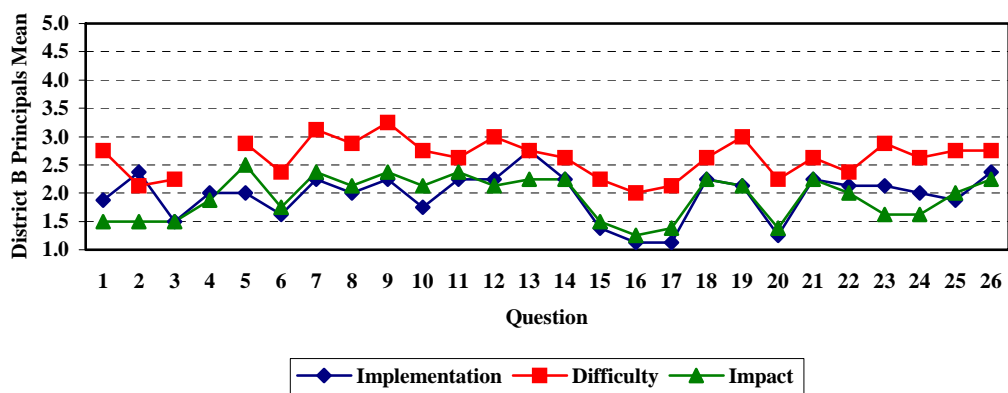
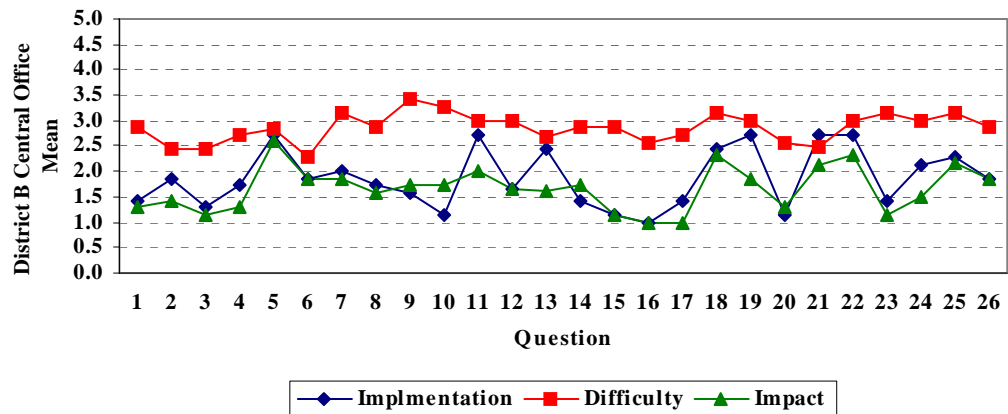
The data on impact reveals closer alignment between each panel group in District B, which perceive that implementation has a strong to moderate impact on collective teacher efficacy. Principals differed with teachers and central office on questions 7 through 14 but within the strong to moderate range. These questions link to strategic planning and student stakeholder focus of the Baldrige Categories, and

principals may not perceive these as areas that directly impact teachers in their direct work with students. The panels perceived questions 18 and 19 for Item 5.1, and questions 21 and 22 for Item 5.3, having less of an impact on collective efficacy suggesting that work systems and issues of satisfaction, while important, have not been deployed to the extent necessary to discern impact on teachers' collective efficacy. This difference also continues to raise the question of whether or not teachers believe they can make a difference and persist in the challenge with or without external motivation or ideal environmental conditions.

The chart of standard deviations shows the broad range of variance across the questions with the sharpest differences occurring with central office for questions 16 and 17, related to the district's information management system, which central office also unanimously agreed had a strong impact on collective efficacy. The central office panel appears to have made a focused commitment to data analysis and have seen results that demonstrate the ability of data to empower teachers to make decisions about modifying instruction to enhance student performance.

Figure 4.40 compares the aggregate mean for each of the panel group across the three scales, extent of implementation, level of difficulty of implementation, and the impact of implementation on collective teacher efficacy.

Figure 4.40. District B Run Chart of Means for Implementation, Difficulty of Implementation, and Impact on Collective Teacher Efficacy for Panel Groups



The mean responses of the central office panel for the extent of implementation fell between 1.00 and 2.71 with most of the responses between 1.40 and 2.50 indicating that this group perceived implementation as well to fully integrated with a systematic approach. Five questions fell outside this band with means of 2.71 including question 5, the extent that district leaders have facilitated the use of district resources for the community; 11, which addresses the extent to which the district has developed strategies to determine key student needs, expectations, and stakeholder satisfaction; and questions 19, 21 and 22 related to Item 5.3, Faculty and Staff Well-Being and Satisfaction and revealing the perception that these areas are only reasonably implemented.

The central office panel considered implementation difficult with the exception of question 6, which had a mean of 2.29. Question 6, which the group perceived easy to implement, relates to Item 1.2 and the area of how district leaders ensure ethical practices in all interactions with students and stakeholders.

The means for the impact of implementation on collective teacher efficacy showed fluctuation across the questions. The areas with the greatest impact on collective efficacy with means between 1.00 and 1.63 include: question 6 related to ethical practices; question 9, which addresses the implementation of action plans to achieve objectives; questions 15 through 17 that link to Items 4.1, Measurement and Analysis of Organizational Performance and 4.2, Information Management; question 20 on the alignment of staff training and development with district objectives; and question 23 linked to the development of educational programs that consider student differences and engage students in active learning.

The principal panel showed consistency across the questions for each of the scales. The mean for the extent of implementation ranged from 1.13 to 2.75 with most of the responses between 1.13 and 2.38. Question 13, related to Item 3.2 fell outside this range agreeing that this area was reasonably implemented. Principals viewed implementation as difficult with means ranging from 2.13 to 3.25, and most of the responses between 2.50 and 3.25. Principals considered question 2 easy to implement. The perception of principals on the impact of implementation on collective efficacy has fewer extremes and fluctuations with most responses reflecting strong to moderate impact with the exceptions of question 5, which addresses the extent that district leaders have facilitated the use of district resources for the community. Principal responses to implementation and impact on collective efficacy align very closely suggesting that principals' proximity to teachers has influenced their perceptions of the impact of implementation on teachers' collective efficacy, and some disconnect occurs between central office and the classroom level.

The teacher panel means for the extent of implementation ranged from 1.67 to 3.33. Teachers' perceptions of implementation, while mainly at the level of well-integrated with a systematic approach, showed greater fluctuation and lower implementation levels at questions 10, 13, and 19. Teachers perceived implementation as difficult with means from 2.00 to 3.00, but like principals, considered question 2, related to communication of core values by senior leaders as easy. Teacher's perceptions on the impact of implementation on collective efficacy also showed strong to moderate impact across the questions except for question 5, which addresses the extent that district leaders have facilitated the use of district

resources for the community. Although teachers' perceptions of implementation varied across the questions, impact remained fairly constant indicating that teachers recognize how these practices can make a difference in collective efficacy.

Table 4.38 provides the ascending rank order of District B means and standard deviations for the extent of implementation.

| Table 4.38 — District B Ranked Aggregate Means and Standard Deviations for Extent of Implementation | | | | | |
|--|-----------------------|-----------|--|-----------------------|-----------|
| Implementation Mean | | | Implementation Standard Deviation | | |
| Category.Item - Ques | Implementation | SD | Category.Item - Ques | Implementation | SD |
| 4.1 - 16 | 1.33 | 0.66 | 1.2 - 6 | 1.86 | 0.57 |
| 5.2 - 20 | 1.33 | 0.58 | 5.2 - 20 | 1.33 | 0.58 |
| 4.1 - 15 | 1.43 | 0.81 | 4.1 - 16 | 1.33 | 0.66 |
| 1.1 - 3 | 1.52 | 0.68 | 1.1 - 3 | 1.52 | 0.68 |
| 4.2 - 17 | 1.57 | 0.81 | 5.3 - 21 | 2.52 | 0.68 |
| 1.1 - 1 | 1.86 | 0.73 | 1.1 - 1 | 1.86 | 0.73 |
| 1.2 - 6 | 1.86 | 0.57 | 6.2 - 26 | 2.14 | 0.73 |
| 2.2 - 10 | 1.86 | 0.85 | 5.3 - 22 | 2.38 | 0.74 |
| 1.2 - 4 | 1.90 | 0.77 | 1.2 - 4 | 1.90 | 0.77 |
| 6.1 - 23 | 1.90 | 0.77 | 6.1 - 23 | 1.90 | 0.77 |
| 4.1 - 14 | 2.00 | 0.89 | 3.2 - 12 | 2.10 | 0.79 |
| 2.1 - 8 | 2.05 | 0.80 | 6.1 - 24 | 2.14 | 0.79 |
| 1.1 - 2 | 2.10 | 1.00 | 2.1 - 8 | 2.05 | 0.80 |
| 2.1 - 7 | 2.10 | 0.89 | 5.1 - 18 | 2.33 | 0.80 |
| 3.2 - 12 | 2.10 | 0.79 | 4.1 - 15 | 1.43 | 0.81 |
| 6.2 - 25 | 2.10 | 0.83 | 4.2 - 17 | 1.57 | 0.81 |
| 2.2 - 9 | 2.14 | 0.91 | 6.2 - 25 | 2.10 | 0.83 |
| 6.1 - 24 | 2.14 | 0.79 | 2.2 - 10 | 1.86 | 0.85 |
| 6.2 - 26 | 2.14 | 0.73 | 1.2 - 5 | 2.33 | 0.86 |
| 1.2 - 5 | 2.33 | 0.86 | 3.2 - 13 | 2.67 | 0.86 |
| 5.1 - 18 | 2.33 | 0.80 | 2.1 - 7 | 2.10 | 0.89 |
| 5.3 - 22 | 2.38 | 0.74 | 4.1 - 14 | 2.00 | 0.89 |
| 5.3 - 21 | 2.52 | 0.68 | 2.2 - 9 | 2.14 | 0.91 |
| 3.1 - 11 | 2.53 | 0.93 | 3.1 - 11 | 2.53 | 0.93 |
| 3.2 - 13 | 2.67 | 0.86 | 1.1 - 2 | 2.10 | 1.00 |
| 5.1 - 19 | 2.67 | 1.06 | 5.1 - 19 | 2.67 | 1.06 |

In District B, the Items most deployed in the organization relate to the use of data; training and development of faculty and staff; the establishment and communication of core values; the degree to which leaders review performance; and the deployment of action plans to meet objectives with key performance indicators for tracking progress of those action plans. This finding strongly supports the Baldrige Criteria framework, which identifies leadership and strategic planning supported by information analysis as primary drivers of organizational performance. The results for District B as well as District A also highlights the role of building capacity through training and development in learner-centered and continuous process improvement strategies, which are critical to the implementation of the Baldrige Criteria as an integrated management system.

Only four areas fell below a mean of 2.50, question 19 linking to Item 5.1, Work Systems, and question 21 linking to Item 5.3, Faculty and Staff Well-Being and Satisfaction suggesting that this is one area that may need more time or better processes before reaching full deployment. Question 11, Item 3.1 and question 13, Item 3.2, also showed a lesser degree of implementation. Both of these Items address collecting data on students and stakeholders. The district may still be in the early stages of developing an effective approach or has not yet fully deployed existing approaches.

Table 4.39 provides the District B ascending rank order of means and standard deviations for the difficulty of implementation.

| Table 4.39 — District B Ranked Aggregate Means and Standard Deviations for Difficulty of Implementation | | | | | |
|--|-------------------|-----------|---------------------------------------|-------------------|-----------|
| Difficulty Mean | | | Difficulty Standard Deviations | | |
| Category.Item - Ques | Difficulty | SD | Category.Item - Ques | Difficulty | SD |
| 1.1 - 2 | 2.19 | 0.60 | 3.1 - 11 | 2.86 | 0.36 |
| 1.2 - 6 | 2.33 | 0.48 | 3.2 - 12 | 3.10 | 0.45 |
| 4.1 - 16 | 2.33 | 0.66 | 1.2 - 6 | 2.33 | 0.48 |
| 5.2 - 20 | 2.33 | 0.66 | 1.2 - 5 | 2.85 | 0.49 |
| 1.1 - 3 | 2.38 | 0.50 | 5.1 - 18 | 2.85 | 0.49 |
| 4.2 - 17 | 2.38 | 0.74 | 1.1 - 3 | 2.38 | 0.50 |
| 5.3 - 21 | 2.55 | 0.60 | 1.1 - 1 | 2.81 | 0.51 |
| 4.1 - 15 | 2.57 | 0.81 | 5.1 - 19 | 3.05 | 0.52 |
| 5.3 - 22 | 2.63 | 0.60 | 1.1 - 2 | 2.19 | 0.60 |
| 3.2 - 13 | 2.65 | 0.67 | 5.3 - 21 | 2.55 | 0.60 |
| 4.1 - 14 | 2.71 | 0.72 | 5.3 - 22 | 2.63 | 0.60 |
| 6.1 - 24 | 2.71 | 0.78 | 6.2 - 26 | 2.81 | 0.60 |
| 1.1 - 1 | 2.81 | 0.51 | 6.2 - 25 | 2.90 | 0.62 |
| 6.2 - 26 | 2.81 | 0.60 | 6.1 - 23 | 2.86 | 0.65 |
| 1.2 - 5 | 2.85 | 0.49 | 4.1 - 16 | 2.33 | 0.66 |
| 5.1 - 18 | 2.85 | 0.49 | 5.2 - 20 | 2.33 | 0.66 |
| 2.1 - 8 | 2.86 | 0.73 | 3.2 - 13 | 2.65 | 0.67 |
| 3.1 - 11 | 2.86 | 0.36 | 2.2 - 9 | 3.10 | 0.70 |
| 6.1 - 23 | 2.86 | 0.65 | 2.2 - 10 | 3.00 | 0.71 |
| 6.2 - 25 | 2.90 | 0.62 | 4.1 - 14 | 2.71 | 0.72 |
| 2.2 - 10 | 3.00 | 0.71 | 2.1 - 8 | 2.86 | 0.73 |
| 2.1 - 7 | 3.05 | 0.74 | 2.1 - 7 | 3.05 | 0.74 |
| 5.1 - 19 | 3.05 | 0.52 | 4.2 - 17 | 2.38 | 0.74 |
| 2.2 - 9 | 3.10 | 0.70 | 6.1 - 24 | 2.71 | 0.78 |
| 3.2 - 12 | 3.10 | 0.45 | 4.1 - 15 | 2.57 | 0.81 |

The level of difficulty is ranked from easy to difficult. Five of the first six in the ranking also appear high on implementation. The ranking also reveals that District B perceived the remainder of the areas under study as more difficult to implement, but succeeded in doing so as indicated in the extent of implementation noted in previous analyses. The most difficult to implement for this district were questions related to strategic planning and the implementation of action plans, building relationships with students and stakeholders, and motivating faculty and

staff. In spite of the difficulty of implementing these practices, all of the last five in the ranking showed high levels of implementation except for question 19 related to motivation.

Table 4.40 provides the District B ascending rank order of means and standard deviations for the difficulty of implementation.

| Table 4.40 — District B Ranked Aggregate Means and Standard Deviations for Impact of Implementation on Collective Teacher Efficacy | | | | | |
|---|---------------|-----------|-----------------------------------|---------------|-----------|
| Impact Means | | | Impact Standard Deviations | | |
| Category.Item - Ques | Impact | SD | Category.Item - Ques | Impact | SD |
| 4.1 - 16 | 1.19 | 0.40 | 4.1 - 16 | 1.19 | 0.40 |
| 4.2 - 17 | 1.29 | 0.46 | 4.2 - 17 | 1.29 | 0.46 |
| 1.1 - 1 | 1.43 | 0.75 | 5.2 - 20 | 1.43 | 0.51 |
| 4.1 - 15 | 1.43 | 0.60 | 6.1 - 23 | 1.43 | 0.60 |
| 5.2 - 20 | 1.43 | 0.51 | 6.1 - 24 | 1.55 | 0.60 |
| 6.1 - 23 | 1.43 | 0.60 | 4.1 - 15 | 1.43 | 0.60 |
| 1.1 - 3 | 1.48 | 0.68 | 1.2 - 4 | 1.71 | 0.64 |
| 6.1 - 24 | 1.55 | 0.60 | 2.2 - 10 | 1.86 | 0.65 |
| 1.1 - 2 | 1.62 | 0.92 | 4.1 - 14 | 1.95 | 0.67 |
| 1.2 - 4 | 1.71 | 0.64 | 1.1 - 3 | 1.48 | 0.68 |
| 1.2 - 6 | 1.81 | 0.75 | 3.1 - 11 | 2.10 | 0.70 |
| 2.1 - 8 | 1.81 | 0.81 | 3.2 - 12 | 1.90 | 0.72 |
| 2.2 - 10 | 1.86 | 0.65 | 1.1 - 1 | 1.43 | 0.75 |
| 3.2 - 12 | 1.90 | 0.72 | 1.2 - 6 | 1.81 | 0.75 |
| 2.2 - 9 | 1.95 | 0.80 | 6.2 - 25 | 2.05 | 0.76 |
| 3.2 - 13 | 1.95 | 0.85 | 6.2 - 26 | 2.14 | 0.79 |
| 4.1 - 14 | 1.95 | 0.67 | 5.1 - 18 | 2.30 | 0.80 |
| 2.1 - 7 | 2.05 | 0.89 | 2.2 - 9 | 1.95 | 0.80 |
| 6.2 - 25 | 2.05 | 0.76 | 2.1 - 8 | 1.81 | 0.81 |
| 3.1 - 11 | 2.10 | 0.70 | 1.2 - 5 | 2.58 | 0.84 |
| 5.1 - 19 | 2.10 | 1.02 | 3.2 - 13 | 1.95 | 0.85 |
| 6.2 - 26 | 2.14 | 0.79 | 5.3 - 21 | 2.19 | 0.87 |
| 5.3 - 21 | 2.19 | 0.87 | 2.1 - 7 | 2.05 | 0.89 |
| 5.3 - 22 | 2.25 | 0.97 | 1.1 - 2 | 1.62 | 0.92 |
| 5.1 - 18 | 2.30 | 0.80 | 5.3 - 22 | 2.25 | 0.97 |
| 1.2 - 5 | 2.58 | 0.84 | 5.1 - 19 | 2.10 | 1.02 |

For impact on collective efficacy, the means ranged from 1.19 to 2.50 with all of the means at or below 2.25 except for question 5 with a mean of 2.50 indicating that all of the areas had a strong to moderate impact. Eight out of ten of the areas with the strongest impact on collective efficacy are also the areas with the greatest extent of implementation. Of those questions with the greatest implementation and strongest impact, six are also more difficult to implement.

The level of agreement between the panels on the extent of implementation, level of difficulty, and impact on collective efficacy indicate that the panels within the district perceived they have a systematic approach for all of the Baldrige Criteria Items some of which are more effective than others. The panels in District B also perceive that the district has fact-based systems and processes for improving the efficiency and effectiveness of district operations. The approaches developed by this organization are perceived to be aligned to its goals and objectives and deployed throughout the district with some possible gaps in approach and/or deployment.

District C Results and Analysis

Item 1.1 Organizational Leadership. Questions 1 through 3 provide data reflecting participant perceptions related to how senior leaders provide organizational leadership by: establishing and deploying core values and performance expectations; creating an environment that promotes ethical behavior, equity for students, empowerment, and innovation; reviewing and assessing performance data and communicating findings and acting on those findings. Table 4.41 displays District C panel group and aggregate data for questions 1 through 3.

| Table 4.41 —Research Question (RQ) 2 District C between Group and within Group Data for Questions 1-3 | | | | | | | | | |
|---|----------------|------|----|--|------|----|---|------|----|
| <i>Implementation</i> | | | | <i>Difficulty of Implementation</i> | | | <i>Impact on Collective Teacher Efficacy</i> | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement 2. Systematic approach, well integrated and implemented 3. Systematic approach, reasonably implemented 4. Systematic approach, early stages of planning and implementation 5. No systematic approach 6. Not observed (NO) | | | | 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | | 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 1. To what extent have district leaders established core values and performance expectations? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.00 | 0 | | 2.67 | .52 | | 2.00 | .63 | |
| Principals | 2.86 | 1.46 | | 2.67 | .52 | 1 | 2.29 | .95 | |
| Teachers | 3.40 | .89 | | 2.40 | .89 | | 2.40 | .55 | |
| District Aggregate | 3.06 | 1.00 | | 2.59 | .62 | 1 | 2.22 | .73 | |
| 2. To what extent have district leaders communicated the core values and performance expectations? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.00 | 0 | | 2.50 | .55 | | 2.17 | .41 | |
| Principals | 3.29 | 1.11 | | 2.57 | .53 | | 2.43 | .53 | |
| Teachers | 2.60 | .89 | | 2.60 | .89 | | 2.40 | .55 | |
| District Aggregate | 3.00 | .84 | | 2.56 | .62 | | 2.33 | .49 | |
| 3. To what extent have district leaders reviewed district performance to assess progress of goals? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.67 | .52 | | 2.83 | .41 | | 2.50 | .84 | |
| Principals | 3.00 | .82 | | 2.71 | 1.25 | | 2.29 | 1.11 | |
| Teachers | 3.00 | 1.22 | | 2.80 | .84 | | 2.80 | .45 | |
| District Aggregate | 2.89 | .83 | | 2.78 | .88 | | 2.50 | .86 | |

Question 1 reveals that central office reached consensus regarding the extent of implementation perceiving this areas as systematic and reasonably implemented. All panel groups agreed that implementation was difficult with the least variance among the central office and principals ($SD = .52$). Within group consensus was reached on the impact of implementation on collective teacher efficacy with central office and teachers perceiving impact as moderate and principals agreed that impact was limited.

For question 2, the central office panel reached consensus across all of the scales agreeing on extent of implementation at a scale item 3 and that implementation was difficult with a moderate impact on collective teacher efficacy. Within and between group consensus was reached on the difficulty of implementation and impact on collective efficacy.

Question 3 shows that central office and principals reached within group consensus on the extent of implementation, and teacher responses ranged from well implemented to early stages of implementation with a standard deviation of .84. Between group consensus was reached on the level of difficulty of implementation with little to no variance in responses in central office, ($SD = .0$) and principals ($SD = .46$) panels while teacher responses varied across the scale ($SD = .71$). None of the groups reached consensus on the impact on collective efficacy with the greatest variance among principals ($SD = .82$) and teachers ($SD = .84$).

For Item 1.1, the central office panel group showed more consistent consensus with the least variance for each question and across the scales. The greatest consensus between the panels occurred in level of difficulty of implementation.

Item 1.2 Public Responsibility and Citizenship. Questions 4 through 6 provide data reflecting participant perceptions related to how the organization fulfills its public responsibility and practices good citizenship, and how senior leaders, as well as faculty and staff, promote good citizenship by actively identifying and supporting key communities supporting the organization's mission and core values. Table 4.42 displays District C panel group and aggregate data for questions 4 through 6.

| Table 4.42 — RQ 2 District C between Group and within Group Data for Questions 4-6 | | | | | | | | | |
|--|----------------|------|----|------------------------------|------|----|---------------------------------------|------|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 4. To what extent have district leaders examined the changing needs and capabilities of the district to ensure continuous improvement? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.67 | .52 | | | | | 2.50 | .55 | |
| Principals | 2.86 | .69 | | | | | 2.00 | .82 | |
| Teachers | 3.20 | .84 | | | | | 2.80 | .84 | |
| District Aggregate | 2.89 | .68 | | | | | 2.39 | .78 | |
| 5. To what extent have district leaders facilitated the use of district resources (e.g., facilities, extended outreach programs, community education, etc.) for the community? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.17 | .98 | | 2.40 | .55 | 1 | 2.83 | .76 | |
| Principals | 3.43 | 1.51 | | 2.86 | 1.21 | | 2.86 | 1.07 | |
| Teachers | 3.40 | .89 | | 3.20 | .84 | | 3.00 | .71 | |
| District Aggregate | 3.33 | 1.14 | | 2.82 | .95 | 1 | 2.89 | .83 | |
| 6. To what extent have district leaders ensured ethical practices in all interactions with students and stakeholders? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.67 | .52 | | 2.67 | .52 | | 2.50 | .55 | |
| Principals | 2.86 | 1.21 | | 2.67 | 1.03 | 1 | 2.57 | .98 | |
| Teachers | 3.20 | 1.48 | | 2.50 | 1.00 | 1 | 2.00 | .82 | 1 |
| District Aggregate | 2.89 | 1.08 | | 2.63 | .81 | 2 | 2.41 | .80 | 1 |

Question 4 data show within group consensus for central office and principals who agree this area is reasonably implemented with a systematic approach. Between group consensus was reached on the level of difficulty of implementation, which was perceived as difficult with the most variance in the teacher group ($SD = .71$). None of the panels reached consensus regarding the impact on collective teacher efficacy with responses ranging from strong to no impact.

For question 5, the central office and teacher panel reached consensus on the extent of implementation. Principal panel responses varied on the scale between 1 and 4 with the greatest variance ($SD = 1.51$). The central office panel reached between group consensus on the level of difficulty of implementation. The principal panel exhibited the greatest variance in responses ($SD = 1.21$). The central office and teacher panel concurred on the limited impact on collective teacher efficacy and large variance in the principal panel ($SD = 1.07$).

The central office and principal panels reached consensus regarding the extent and difficulty of implementation for question 6 perceiving this area as reasonably implemented with a systematic approach. The central office and teacher panel both reached within group consensus agreeing that implementation was difficult. Principals ranged from very easy to very difficult. No group reached consensus on the impact of implementation on collective efficacy.

The responses to the questions related to Item 1.2 show agreement mostly with the central office panel and little to no between group consensus. The central office panel reached consensus the most, and the greatest variance in responses occurred in the principal panel across each of the three scales.

Item 2.1 Strategy Development. Questions 7 and 8 provide data reflecting participant perceptions related to how the organization develops its strategic objectives considering key factors that may influence future success and balancing the needs of students and stakeholders. Table 4.43 displays District C panel group and aggregate data for questions 7 and 8.

| Table 4.43 — RQ 2 District C between Group and within Group Data for Questions 7-8 | | | | | | | | | |
|--|----------------|------|----|-------------------------------------|------|----|--|-----|----|
| <i>Implementation</i> | | | | <i>Difficulty of Implementation</i> | | | <i>Impact on Collective Teacher Efficacy</i> | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 7. To what extent have district leaders facilitated a planning process that involves all stakeholders? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.67 | .52 | | 2.67 | .52 | | 2.17 | .41 | |
| Principals | 2.57 | .98 | | 3.00 | .82 | | 1.86 | .90 | |
| Teachers | 3.00 | .82 | 1 | 3.00 | .82 | 1 | 2.80 | .84 | |
| District Aggregate | 2.71 | .77 | 1 | 2.82 | .70 | 1 | 2.22 | .81 | |
| 8. To what extent have district leaders considered student and stakeholder needs, expectations, and opportunities in the planning process? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.83 | .41 | | 2.67 | .52 | | 2.00 | 0 | |
| Principals | 2.67 | 1.03 | | 2.33 | 1.03 | 1 | 2.00 | .89 | 1 |
| Teachers | 3.00 | 1.41 | 1 | 3.00 | .82 | 1 | 2.50 | .58 | 1 |
| District Aggregate | 2.81 | .91 | 2 | 2.63 | .81 | 2 | 2.13 | .62 | 2 |

Responses for question 7 show only the central office panel reaching within group consensus on implementation, difficulty, and impact. Principal and teacher responses were dispersed across the items for each scale resulting in the District not reaching between group consensus for any of the scales.

Question 8 responses show within group consensus for implementation, difficulty of implementation and impact of implementation on collective efficacy.

The principal panel did reach consensus on the level of difficulty agreeing with central office that this area was difficult to implement. Teacher responses varied across the each the scale from.

Item 2.2 Strategy Deployment. Questions 9 and 10 provide data reflecting participant perceptions related to how the organization converts strategic objectives into action plans, especially the extent of deployment throughout the organization as evidenced by alignment of processes to goals and objectives. Table 4.44 displays District C panel group and aggregate data for questions 9 and 10.

| Table 4.44 — RQ 2 District C between Group and within Group Data for Questions 9-10 | | | | | | | | | |
|---|----------------|------|----|-------------------------------------|-----|----|--|------|----|
| <i>Implementation</i> | | | | <i>Difficulty of Implementation</i> | | | <i>Impact on Collective Teacher Efficacy</i> | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 9. To what extent have district leaders developed and implemented action plans to achieve objectives? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.67 | .52 | | 2.83 | .41 | | 2.17 | .41 | |
| Principals | 2.43 | 1.13 | | 2.71 | .76 | | 1.86 | 1.07 | |
| Teachers | 3.00 | 1.22 | | 3.00 | .71 | | 2.40 | 1.14 | |
| District Aggregate | 2.67 | .97 | | 2.83 | .62 | | 2.11 | .90 | |
| 10. To what extent have district leaders identified performance measures for tracking the progress of action plans? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.17 | .41 | | 2.67 | .52 | | 2.00 | 0 | |
| Principals | 2.86 | 1.21 | | 2.86 | .69 | | 2.14 | .90 | |
| Teachers | 3.60 | 1.14 | | 3.00 | .82 | 1 | 2.50 | .58 | 1 |
| District Aggregate | 3.17 | .99 | | 2.82 | .64 | 1 | 2.18 | .64 | 1 |

Question 9 shows consensus within the central office panel on the extent of implementation, and the greatest variance among teachers ($SD = 1.22$). Central office and teachers agreed that implementation was difficult while principal responses

varied from easy to very difficult. Only central office reached within group consensus on the impact on collective efficacy with teachers and principals varying from strong to no impact.

Question 10 showed within group consensus on the extent of implementation, difficulty and impact. The principal panel concurred that implementation was difficult but with some dispersion in responses ($SD = .69$). Teacher responses were varied for each of the scales.

Item 3.1 Knowledge of Student, Stakeholder, and Market Needs and Expectations.

Question 11 provides data reflecting participant perceptions related to the organization's key processes for determining knowledge about the requirements, expectations, and preferences of both current and future student, stakeholder, and markets. The information gained from these intelligence processes serves to create a climate open to learning and development of all students. Table 4.45 displays District C panel group and aggregate data for question 11.

| Table 4.45 —RQ 2 District C Between Group and Within Group Data for Question 11 | | | | | | | | | |
|--|----------------|------|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 11. To what extent has the district developed strategies to determine key student needs, expectations, and stakeholder satisfaction? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.00 | 0 | | 3.00 | 0 | | 2.33 | .52 | |
| Principals | 2.33 | 1.03 | 1 | 2.67 | .52 | 1 | 1.67 | .82 | 1 |
| Teachers | 3.25 | .96 | 1 | 3.20 | .84 | | 2.80 | .84 | |
| District Aggregate | 2.81 | .83 | 2 | 2.94 | .56 | 1 | 2.24 | .83 | 1 |

The central office panel agreed unanimously that the district had a systematic approach that was reasonably implemented and difficult to implement. Principal panel concurred on the difficulty of implementation. Central office also agreed on the moderate impact of implementation on collective teacher efficacy. No evidence of within group consensus emerged within the teacher panel.

Item 3.2 Student and Stakeholder Relationships and Satisfaction. Questions 12 and 13 provide data reflecting participant perceptions related to how the organization builds relationships to retain students and enhance student learning. This Item also examines the organization's ability to deliver services that satisfy students and stakeholders as well developing new opportunities to meet those needs. Table 4.46 displays District C panel group and aggregate data for questions 12 and 13.

| Table 4.46 —RQ 2 District C between Group and within Group Data for Questions 12-13 | | | | | | | | | |
|--|----------------|------|----|------------------------------|------|----|---------------------------------------|------|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 12. To what extent has the district built relationships to enhance student performance and retain students? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.17 | .41 | | 2.83 | .41 | | 2.17 | .41 | |
| Principals | 3.00 | 1.15 | | 2.71 | .49 | | 2.14 | .69 | |
| Teachers | 3.60 | 1.14 | | 3.25 | .50 | | 2.40 | .55 | |
| District Aggregate | 3.22 | .94 | | 2.88 | .49 | | 2.22 | .55 | |
| 13. To what extent has the district collected information from students and stakeholders to improve the district and its services? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.33 | .82 | | 2.67 | .52 | | 2.50 | .55 | |
| Principals | 3.14 | .90 | | 2.71 | .76 | | 2.43 | 1.13 | |
| Teachers | 3.60 | .89 | | 3.00 | 1.15 | 1 | 3.00 | .82 | 1 |
| District Aggregate | 3.33 | .84 | | 2.76 | .75 | 1 | 2.59 | .87 | 1 |

For question 12, the data from the central office panel indicate consensus on the extent of implementation. Consensus both within panel groups and across groups showed implementation as difficult to achieve. All panel groups and the aggregate reflected agreement on the moderate impact of this area on collective efficacy.

The central office and teacher panel agreed on the extent of implementation for question 13, which had a systematic approach, reasonably implemented. Regarding the difficulty of implementation, central office concurred that it was difficult. The central office panel agreed on the moderate impact on collective efficacy. No agreement resulted from principals ($SD = 1.13$) or teachers ($SD = .82$) with one “not observed” response.

The perception of the extent of implementation varied within and across each panel group for both questions. Although consensus was reached on the difficulty of implementing processes to build relationships, no clear indication emerged regarding the level of difficulty in collecting information to improve services.

Item 4.1 Measurement and Analysis of Organizational Performance. Questions 14 through 16 provide data reflecting participant perceptions related to the mechanical processes for data collection as well as the analytical processes used to interpret the data that is then deployed at all levels of the organization to improve operational and student performance. Table 4.47 displays District C panel group and aggregate data for questions 14 through 16.

| Table 4.47 — RQ 2 District C between Group and within Group Data for Questions 14-16 | | | | | | | | | |
|---|----------------|------|----|--|-----|----|---|------|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement 2. Systematic approach, well integrated and implemented 3. Systematic approach, reasonably implemented 4. Systematic approach, early stages of planning and implementation 5. No systematic approach 6. Not observed (NO) | | | | 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | | 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 14. To what extent has the district gathered and integrated data and information from many sources to support key processes and action plans? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.50 | .84 | | 3.00 | .63 | | 2.17 | .41 | |
| Principals | 3.00 | 1.15 | | 2.86 | .69 | | 2.29 | .95 | |
| Teachers | 3.25 | .96 | 1 | 3.00 | .82 | 1 | 2.40 | 1.14 | 1 |
| District Aggregate | 3.24 | .97 | 1 | 2.94 | .66 | 1 | 2.28 | .83 | 1 |
| 15. To what extent has the district analyzed data and reviewed district performance as it relates to goals and action plans? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.17 | .98 | | 2.83 | .41 | | 2.00 | 0 | |
| Principals | 3.00 | 1.00 | | 2.86 | .69 | | 2.29 | .95 | |
| Teachers | 3.00 | 1.41 | 1 | 2.50 | .58 | 1 | 2.50 | .58 | 1 |
| District Aggregate | 3.06 | 1.03 | 1 | 2.88 | .60 | 1 | 2.24 | .66 | 1 |
| 16. To what extent has the district disaggregated and analyzed data to modify and improve instruction to enhance student achievement? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.33 | 1.03 | | 3.00 | 0 | | 2.17 | .41 | |
| Principal | 3.00 | 1.41 | | 3.14 | .69 | | 2.14 | .90 | |
| Teacher | 3.00 | 1.41 | 1 | 3.00 | .82 | 1 | 2.80 | .84 | |
| District Aggregate | 3.12 | 1.22 | 1 | 3.06 | .56 | 1 | 2.33 | .77 | |

Central office responses to question 14 show consensus on the extent of implementation at scale item 3 (systematic approach, reasonably implemented) with some variance ($SD = .84$). The principal panel and teacher panel responses ranged from a scale item 2 to 4. The central office and principal panels reached consensus agreeing that implementation was difficult. The central office and principal panels also agreed on moderate impact on collective efficacy. Teacher responses varied across the items on each scale.

Consensus occurred within the central office and principal panels on the extent of implementation and difficulty of implementation. The central office panel agreed on

unanimously on the moderate impact on collective efficacy while principal concurred on the limited impact. Teachers were evenly divided between moderate and limited with one “not observed” response.

Central office agreed on the extent of implementation for question 16. Teacher and principal responses ranged from scale item 1 to 4 resulting in a standard deviation of 1.41 for both groups. Central office and principals agreed that implementation was difficult. The teacher panel responses varied from easy to very difficult. Central office reached consensus on the moderate impact of collective efficacy.

The data for the questions related to Item 3.2 show no between group consensus regarding the extent of implementation for questions 14 and 16 and considerable variation in responses ($SD = .84$ to 1.41) with the greatest variance within the principal and teacher panels. Difficulty of implementation and the impact on collective efficacy revealed varying perspective from this area as easy to difficult implement.

Item 4.2 Information Management. Question 17 provides data reflecting participant perceptions related to how organizations ensure the quality and availability of data and information for faculty, staff, students, stakeholders, and suppliers or partners. This Item addresses not only the availability of data, its integrity, reliability, accuracy, and confidentiality but also whether the hardware and software is user friendly, reliable, and updated to remain current with educational service needs. Table 4.48 displays District C panel group and aggregate data for question 17.

| Table 4.48 —RQ 2 District C between Group and within Group Data for Question 17 | | | | | | | | | |
|---|----------------|------|----|------------------------------|------|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 17. To what extent has the district employed an effective system for making data and information available? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.67 | .82 | | 2.83 | .41 | | 2.33 | .52 | |
| Principals | 3.60 | 1.40 | 1 | 3.17 | .98 | 1 | 2.33 | .82 | 1 |
| Teachers | 3.60 | 1.82 | 1 | 3.00 | 1.00 | 2 | 2.75 | .96 | 1 |
| District Aggregate | 3.31 | 1.01 | 2 | 3.00 | .76 | 2 | 2.44 | .73 | 2 |

Central office reached consensus regarding the extent of implementation, difficulty and impact on collective efficacy. The principal and teacher panel responses ranged from 1 to 4 resulting in a standard deviation of 1.40 and 1.82 with one “not observed” response for each group. The central office panel agreed implementation was difficult with the least variance in responses ($SD = .41$). Principal and teacher responses varied between implementation being easy and very difficult. Central office concurred on the moderate impact on collective efficacy.

Item 5.1 Work Systems. Questions 18 and 19 provide data reflecting participant perceptions related to how the organization builds relationships to retain students and enhance student learning. This Item also examines the organization’s ability to deliver services that satisfy students and stakeholders as well developing new opportunities to meet those needs. Table 4.49 displays District C panel group and aggregate data for questions 18 and 19.

| Table 4.49 — RQ 2 District C between Group and within Group Data for Questions 18-19 | | | | | | | | | |
|---|----------------|------|----|--|-----|----|---|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement 2. Systematic approach, well integrated and implemented 3. Systematic approach, reasonably implemented 4. Systematic approach, early stages of planning and implementation 5. No systematic approach 6. Not observed (NO) | | | | 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | | 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 18. To what extent has the district organized and managed work and jobs to promote cooperation, initiative, innovation, and organizational culture? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.33 | .82 | | 2.83 | .41 | | 2.17 | .41 | |
| Principals | 3.43 | .79 | | 3.43 | .79 | | 2.29 | .76 | |
| Teachers | 3.50 | 1.00 | 1 | 3.00 | 0 | 1 | 2.50 | .58 | 1 |
| District Aggregate | 3.41 | .80 | 1 | 3.12 | .60 | 1 | 2.29 | .59 | 1 |
| 19. To what extent has the district motivated faculty and staff to develop and utilize their full potential? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.50 | .84 | | 2.83 | .41 | | 2.17 | .41 | |
| Principals | 3.43 | .98 | | 3.14 | .69 | | 2.43 | .79 | |
| Teachers | 3.20 | 1.48 | | 3.00 | 0 | 1 | 2.50 | .58 | 1 |
| District Aggregate | 3.39 | 1.04 | | 3.00 | .50 | 1 | 2.35 | .86 | |

Central office, principals and teachers reached within group consensus on the extent of implementation with central office agreeing on scale item 3 and principals and teachers agreeing on scale item 4. Central office, principals, and teachers reached consensus within groups on the difficulty of implementation with central office and teachers perceiving implementation as difficult and principals perceiving it as very difficult. The responses regarding the impact on collective showed only central office agreeing on the moderate impact on collective efficacy.

Central office agreed on the extent of implementation at scale item 4 for question 19. Principal ($SD = .98$) and teacher ($SD = 1.48$) responses varied from scale item 1 to 4. Each panel and the aggregate reflected consensus that implementation was difficult with little variance and one member responding, “not observed.” Central office and

principals reached consensus with central office agreeing on moderate impact and principals on limited impact. Teachers were divided between moderate and limited impact.

The responses to this item show that principals and teachers have the greatest variances in responses concerning the extent of implementation and the impact on collective efficacy. Within all panels and the aggregate, consensus was reached on the difficulty of implementation.

Item 5.2 Faculty and Staff Education, Training, and Development. Question 20 provides data reflecting participant perceptions related to how the organization's faculty and staff education and training support the achievement of strategies and objectives. This Item also includes examination of processes for building faculty and staff knowledge, skills, and capabilities that contribute to high performance. Table 4.50 displays District C panel group and aggregate data for question 20.

| Table 4.50 — RQ 2 District C Between Group and Within Group Data for Question 20 | | | | | | | | | |
|--|----------------|------|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 20. To what extent has the district addressed and delivered faculty and staff education, training, and development that is aligned to district goals, action plans, and student achievement? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.67 | .52 | | 2.83 | .41 | | 2.17 | .75 | |
| Principals | 2.86 | 1.21 | | 2.57 | .53 | | 1.43 | .53 | |
| Teachers | 3.40 | .55 | | 2.80 | .45 | | 2.00 | .84 | |
| District Aggregate | 2.94 | .87 | | 2.72 | .46 | | 1.89 | .76 | |

The data from this question show within group consensus on the extent of implementation at scale item 3 in the central office and teacher panels and principal responses from 1 to 4 ($SD = 1.21$). Within and between group consensus was reached on the difficulty of implementation with little variance in each group. The central office and principal panels reached consensus on the impact on collective efficacy with central office perceiving it as moderate and principals as strong. The teacher panel reached consensus on moderate impact.

Item 5.3 Faculty and Staff Well-being and Satisfaction. Questions 21 and 22 provide data reflecting participant perceptions related to how the organization maintains a work environment and faculty and staff climate that contributes to the well-being, satisfaction, and motivation of all employees. This Item also examines workplace health, safety, and ergonomics as well as evaluation methods and measures for determining faculty and staff satisfaction and motivation. Table 4.51 displays District C panel group and aggregate data for questions 21 and 22.

| Table 4.51 —RQ 2 District C between Group and within Group Data for Questions 21-22 | | | | | | | | | |
|---|----------------|------|----|--|------|----|---|------|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement 2. Systematic approach, well integrated and implemented 3. Systematic approach, reasonably implemented 4. Systematic approach, early stages of planning and implementation 5. No systematic approach 6. Not observed (NO) | | | | 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | | 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 21. To what extent has the district ensured workplace health, safety, and ergonomics? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.17 | .41 | | 3.00 | 0 | | 2.17 | .41 | |
| Principals | 3.29 | 1.50 | | 2.71 | .76 | | 2.57 | .98 | |
| Teachers | 4.20 | .84 | | 2.67 | .58 | 2 | 3.00 | 0 | 2 |
| District Aggregate | 3.50 | 1.10 | | 2.81 | .54 | 2 | 2.50 | .73 | 2 |
| 22. To what extent has the district employed a system to assess the key factors that affect faculty and staff well-being, satisfaction, and motivation? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.50 | .55 | | 2.83 | .41 | | 2.00 | 0 | |
| Principals | 3.71 | 1.11 | | 3.00 | 1.00 | | 2.57 | 1.13 | |
| Teachers | 3.75 | 1.26 | 1 | 2.67 | .58 | 2 | 3.00 | 0 | 2 |
| District Aggregate | 3.65 | .93 | 1 | 2.88 | .72 | 2 | 2.44 | .81 | 2 |

The central office panel reached consensus on the extent of implementation agreeing on a “systematic approach, reasonably implemented” and the greatest variance occurring among principals ($SD = 1.50$). Only the central office panel reached consensus on implementation being difficult and moderate impact on collective efficacy. Teachers unanimously agreed on limited impact with two members responding, “not observed.”

For question 22, no panel reached consensus on the extent of implementation with responses ranging from scale item 2 to 5. The greatest variance occurred in the principal panel ($SD = 1.11$). Central office data reveal consensus that implementation was difficult. Central office reached consensus on moderate impact on collective efficacy, and teachers perceived impact as limited with two “not observed” responses. No agreement occurred within the principal panel for any of the scales.

Item 6.1 Education Design and Delivery Processes. Questions 23 and 24 provide data reflecting participant perceptions related to how the organization manages the key processes for the design and delivery of educational programs. Table 4.52 displays District C panel group and aggregate data for questions 23 and 24.

| Table 4.52 — RQ 2 District C between Group and within Group Data for Questions 23-24 | | | | | | | | | |
|--|----------------|------|----|------------------------------|-----|----|---------------------------------------|------|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 23. To what extent has the district considered student differences when developing educational programs that engage students in active learning? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.17 | .41 | | 2.83 | .41 | | 2.33 | .52 | |
| Principals | 3.14 | 1.35 | | 3.00 | .82 | | 2.57 | .79 | |
| Teachers | 3.40 | 1.52 | | 2.75 | .50 | 1 | 2.75 | .50 | 1 |
| District Aggregate | 3.22 | 1.11 | | 2.88 | .60 | 1 | 2.53 | .62 | 1 |
| 24. To what extent has the district employed a process for developing educational programs aligned to district and state goals? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 2.67 | .52 | | 2.67 | .52 | | 2.17 | .41 | |
| Principals | 2.57 | 1.27 | | 2.86 | .69 | | 1.71 | .76 | |
| Teachers | 2.80 | 1.10 | | 3.00 | 0 | | 2.40 | 1.14 | |
| District Aggregate | 2.67 | .97 | | 2.83 | .51 | | 2.06 | .80 | |

The central office panel reached consensus on scale item 3 for the extent of implementation for question 23. The teacher panel had the greatest variance in responses ($SD = 1.52$). Central office and teacher panel groups data show consensus that implementation was difficult. The central office panel concurred on the moderate impact on collective efficacy and principals and teachers perceived limited impact.

For question 24 central office and teachers reached within group consensus on the extent of implementation at scale item 3. All panel groups agreed that this item was difficult to implement. The central office panel also reached consensus on the moderate impact of implementation on collective efficacy. Principal and teacher responses ranged from strong to no impact.

Item 6.2 Student Services. Question 25 provides data reflecting participant perceptions related to how the organization manages its key student services. Table 4.53 displays District C panel group and aggregate data for question 25.

| Table 4.53 — RQ 2 District C between Group and within Group Data for Question 25 | | | | | | | | | |
|--|----------------|------|----|------------------------------|-----|----|---------------------------------------|-----|----|
| Implementation | | | | Difficulty of Implementation | | | Impact on Collective Teacher Efficacy | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 25. To what extent has the district employed a process to measure effectiveness of the implementation of educational programs? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.00 | .63 | | 2.83 | .41 | | 2.00 | 0 | |
| Principals | 3.29 | 1.11 | | 2.67 | .52 | 1 | 2.17 | .75 | 1 |
| Teachers | 3.00 | 1.41 | 1 | 2.75 | .50 | 1 | 2.50 | .58 | 1 |
| District Aggregate | 3.12 | .99 | 1 | 2.75 | .45 | 2 | 2.19 | .54 | 2 |

The central office reached consensus on the extent of implementation. The principal panel and teacher panel responses ranged from scale item 1 to 4 with one “not observed” response. Each panel group reached consensus on the difficulty of implementation at scale item 3, difficult. The central office panel also reached consensus regarding the moderate impact on collective efficacy.

Item 6.3 Support Processes. Question 26 provides data reflecting participant perceptions related to how the organization manages key processes that support daily operations as an educational organization and faculty and staff delivering services.

Table 4.54 displays District C panel group and aggregate data for question 26.

| Table 4.54 — RQ 2 District C between Group and within Group Data for Question 26 | | | | | | | | | |
|--|----------------|-----|----|-------------------------------------|-----|----|--|-----|----|
| <i>Implementation</i> | | | | <i>Difficulty of Implementation</i> | | | <i>Impact on Collective Teacher Efficacy</i> | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement | | | | 1. Very Easy | | | 1. Strong Impact | | |
| 2. Systematic approach, well integrated and implemented | | | | 2. Easy | | | 2. Moderate Impact | | |
| 3. Systematic approach, reasonably implemented | | | | 3. Difficult | | | 3. Limited Impact | | |
| 4. Systematic approach, early stages of planning and implementation | | | | 4. Very Difficult | | | 4. No Impact | | |
| 5. No systematic approach | | | | 5. Not Observed (NO) | | | 5. Not Observed (NO) | | |
| 6. Not observed (NO) | | | | | | | | | |
| Note: Shaded cells reflect consensus within a panel or between panels as determined for the Delphi rounds. | | | | | | | | | |
| 26. To what extent has the district provided support processes that ensure success of educational programs and student services? | | | | | | | | | |
| Panel | Implementation | | | Difficulty | | | Impact | | |
| | Mean | SD | NO | Mean | SD | NO | Mean | SD | NO |
| Central Office | 3.00 | .63 | | 2.67 | .52 | | 2.17 | .75 | |
| Principals | 3.33 | .82 | 1 | 2.67 | .82 | 1 | 2.33 | .82 | 1 |
| Teachers | 3.25 | .96 | 1 | 3.00 | .82 | 1 | 2.50 | .58 | 1 |
| District Aggregate | 3.19 | .75 | 2 | 2.75 | .68 | 2 | 2.31 | .70 | 2 |

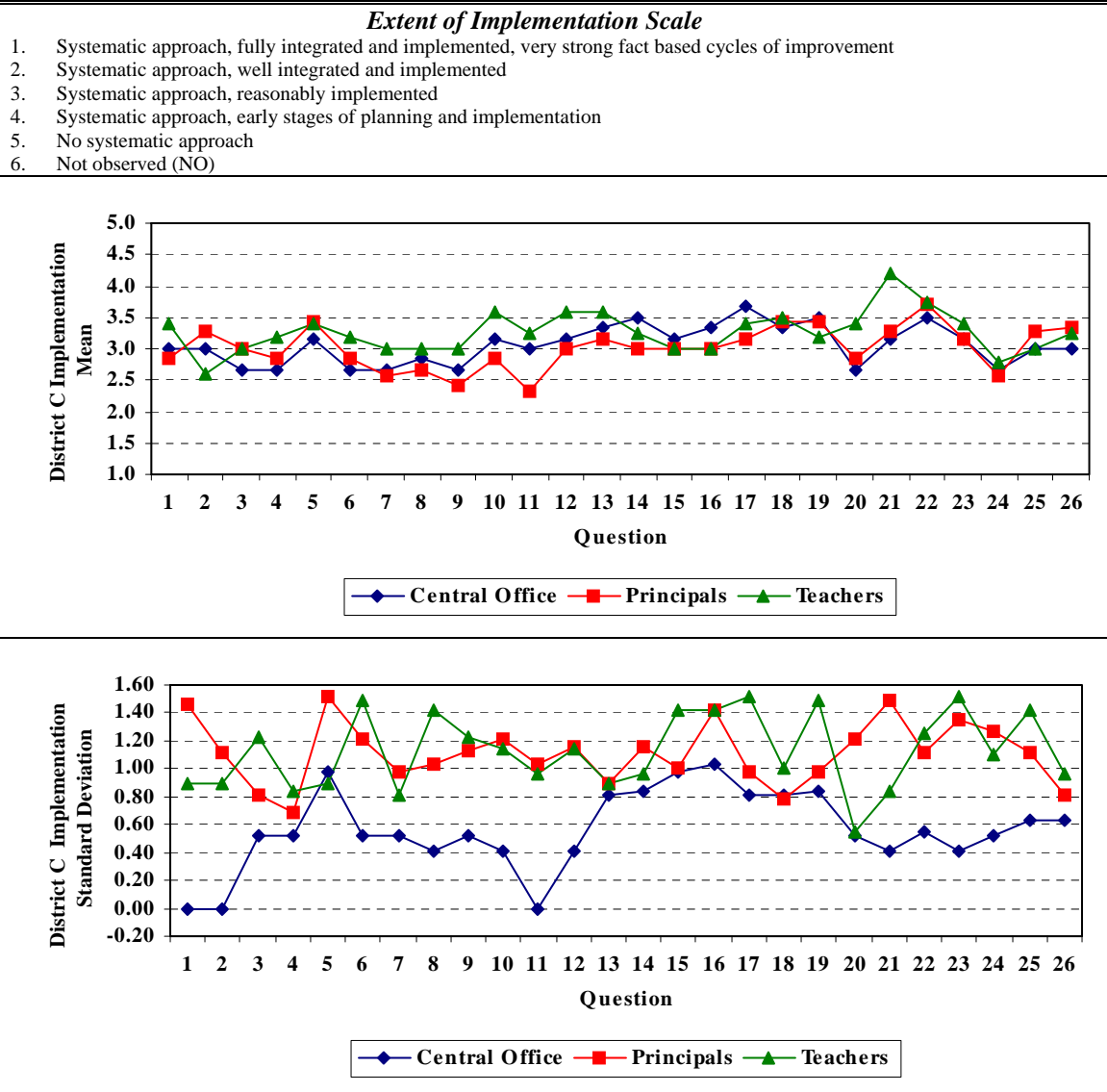
The data from this question reveal that the central office panel agrees that implementation has a systematic approach that is reasonably implemented, difficult to implement with a moderate impact on collective teacher efficacy. Neither the principal or teacher panel reached consensus on any of the scales.

District C Summary

The results for District C revealed that perceptions of the three panel groups, central office, principals, and teachers, largely agree that implementation of the Items of the Baldrige Education Criteria is systematic and reasonably implemented. Implementing the Criteria is difficult and has a strong to limited impact on collective

teacher efficacy. The patterns and trends exhibited in the data can best be visualized by the following run charts that show the mean response for each panel group across the 26 questions linked to the Baldrige Criteria Items. Figure 4.41 displays the aggregate means and standard deviations for the extent of implementation for each question and each panel group in District C.

Figure 4.41. District C Run Chart of Implementation Means and Standard Deviations for Panel Groups



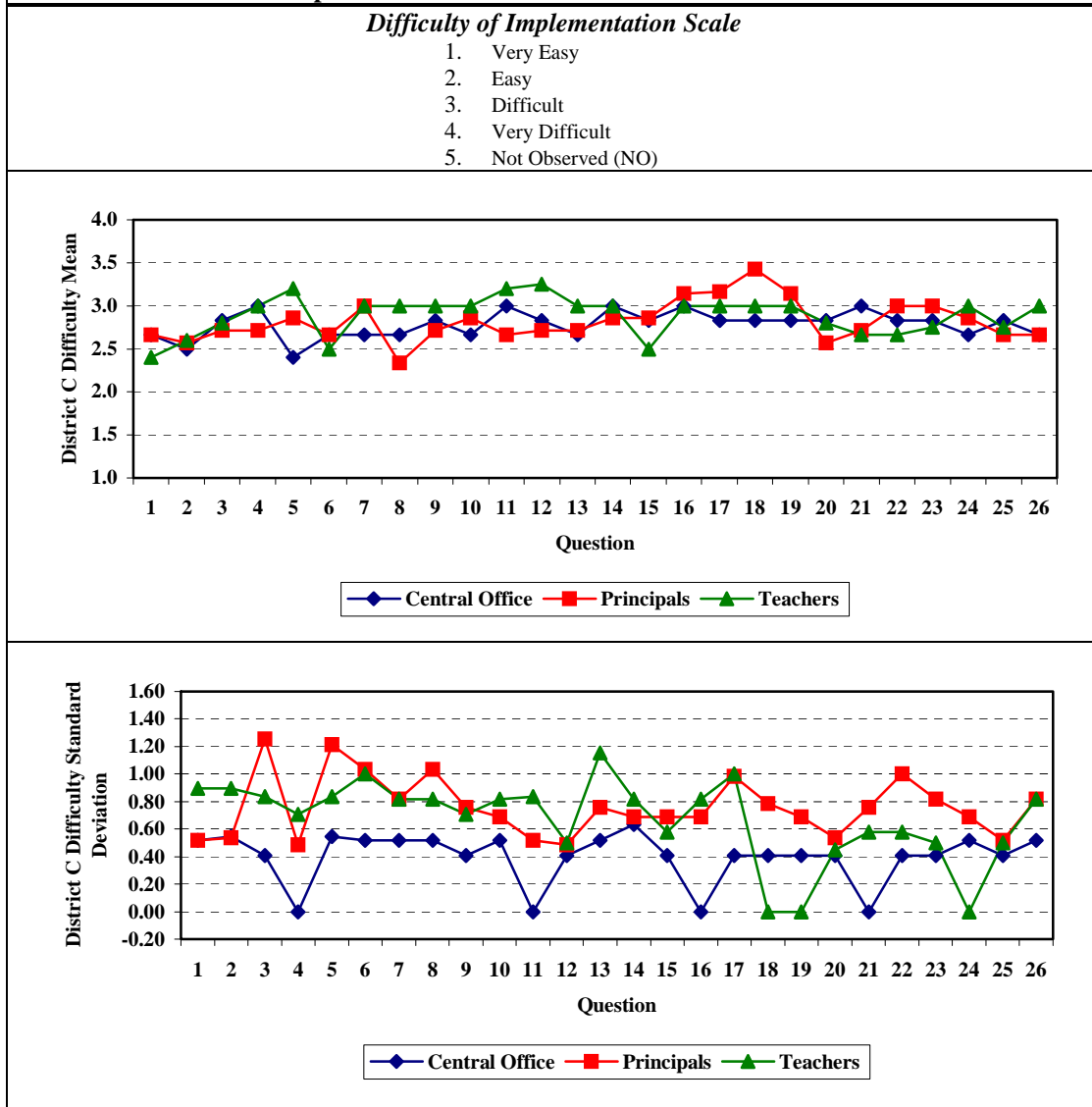
The above run chart demonstrates the level of agreement between each of the panel groups in the perception of the extent of implementation of the areas linked to the Baldrige Criteria. The strongest consensus appears in questions 5, 15, 18, 22, and 24. Question 5 relates to the extent to which district leaders facilitate the use of resources for the community. Question 15 considers the extent to which the district analyses data and reviews performance as it relates to goals and action plans. Question 18 deals with the work systems and how the district promotes cooperation, initiative, innovation, and organizational culture, and question 22 relates to how the organization employs a system to assess faculty and staff well-being, satisfaction, and motivation. Finally, question 24 considers how the organization employs processes for developing educational programs aligned to district and state goals, and question 25 examines how the district measures the effectiveness of the implementation of educational programs.

Although the panels never reached between group consensus on the extent of implementation, the responses across the panels are fairly aligned over most of the questions. The greatest difference between the groups occurred on questions 2, 11, 20, and 21. Overall, teachers, perceived a lower level of implementation as compared to principals and central office.

The standard deviations for each question reveal that while there is agreement, considerable variance in responses exists in the district with the least variance occurring in the central office panel. It appears that perhaps in each of the principal and teacher panels one or two individuals perceived implementation very differently, yet the aggregate of each panel still resulted in close alignment and agreement on the level of implementation. These district responses indicate that the district may have a systematic approach for most areas reasonable implemented and even in the early stages of implementation in some areas.

Figure 4.42 displays the aggregate means and standard deviations for the difficulty of implementation for each question and each panel group in District C.

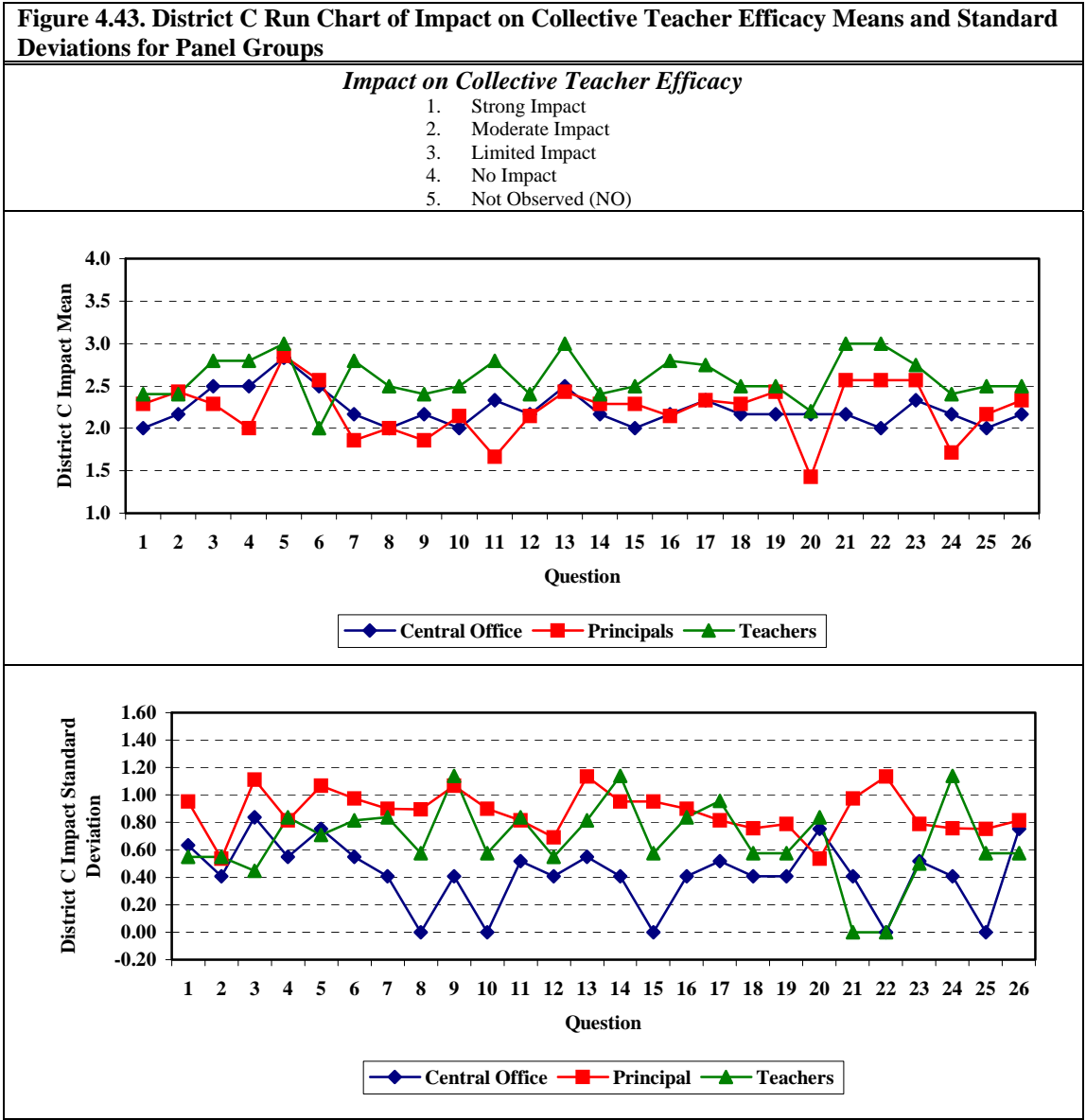
Figure 4.42. District C Run Chart of Difficulty of Implementation Means and Standard Deviations for Panel Groups



The run chart for the level of difficulty of implementation of the Criteria Items shows greater alignment between the panel groups and agreement that each area was difficult to implement except for questions 5, 8, 11, 12, 15, and 18. The standard deviations dramatically portray the erratic variance between the panels. Both central

office and teachers agreed unanimously within the panel on several questions while principals had none, and, overall, central office had the least variance in its responses.

Figure 4.43 displays the aggregate means and standard deviations for the impact of implementation on collective teacher efficacy for each question and each panel group in District C.

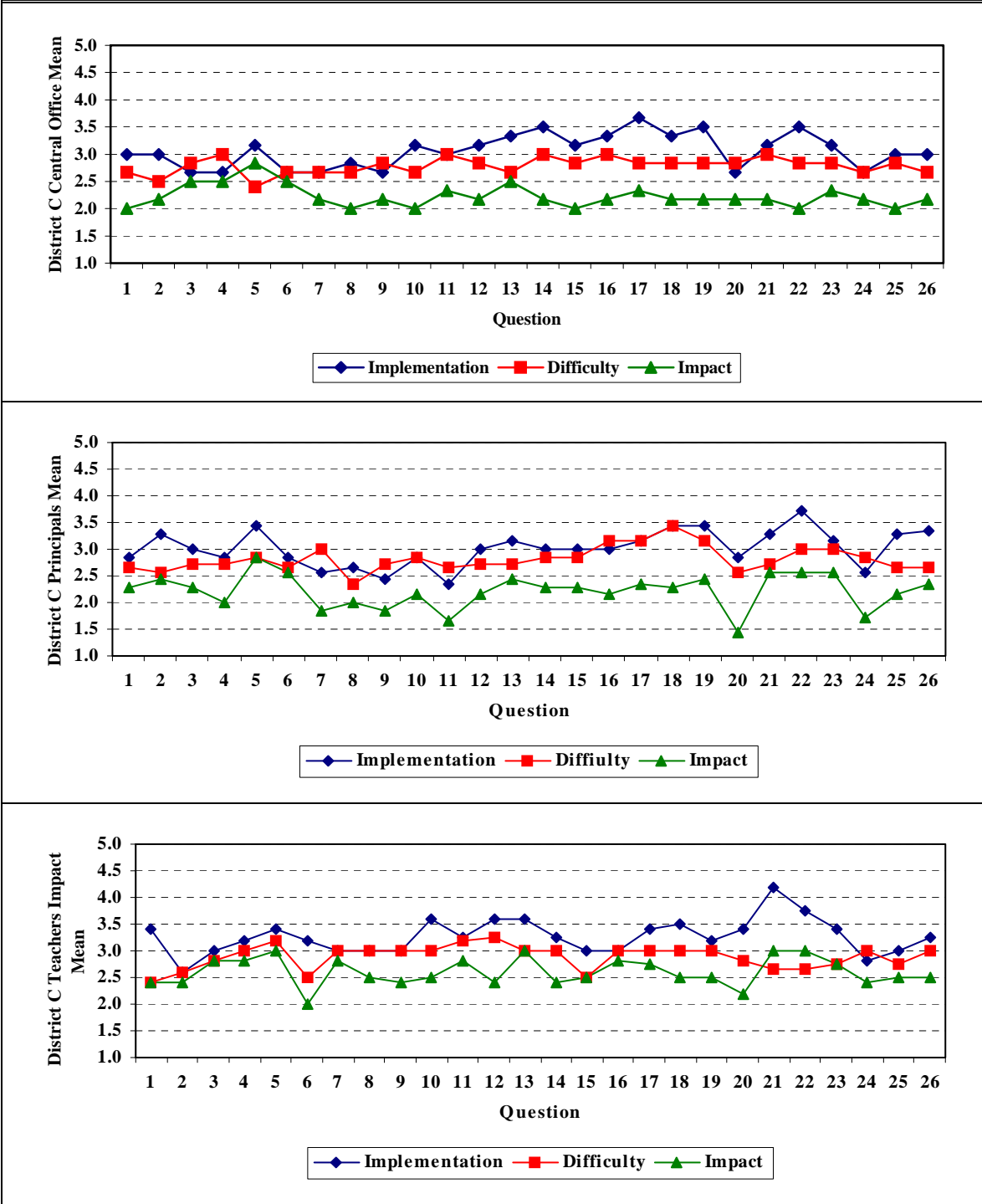


The data on impact reveals closer alignment between central office and principals on the impact of implementation on collective teacher efficacy.

The chart also accentuates the lack of alignment between the panels regarding impact with the exception of question 5. Overall, this District perceived less impact on collective efficacy. However, this district also perceived implementation at a lower level, which may contribute to the level of responses on impact. In other words, impact increases as implementation increases

The chart of standard deviations shows the broad range of variance across the questions with the least variance occurring within central office. Figure 4.44 compares the aggregate mean for each of the panel group across the three scales, extent of implementation, level of difficulty of implementation, and the impact of implementation on collective teacher efficacy.

Figure 4.44. District C Run Chart of Means for Implementation, Difficulty of Implementation, and Impact on Collective Teacher Efficacy for Panel Groups



The mean responses of the central office panel for the extent of implementation fell between 2.67 and 3.67 indicating that this group perceived implementation as reasonable or in the early stages but with a systematic approach. The central office panel perceived less implementation for question 17, which relates to the extent to which the district has employed an effective system for making needed data and information available.

The central office panel considered implementation difficult. The mean responses fell consistently between 2.50 and 3.50. Only question 5 fell slightly below that band.

The means for the impact of implementation on collective teacher efficacy also remained fairly constant across the questions falling between 2.00 and 2.83 with most responses between 2.00 and 2.50. Central office perceived impact as moderate with the least impact for question 5 (mean = 2.83), which considers the extent to which district leaders facilitate the use of resources for the community.

The principal panel showed consistency across the questions for the extent of implementation and the difficulty of implementation. The mean for the extent of implementation ranged from 2.43 to 3.71. Question 22, related to Item 5.2 fell outside this range agreeing that this area was in the early stages of implementation. Principals viewed implementation as difficult with means ranging from 2.33 to 3.33. The perception of principals on the impact of implementation on collective efficacy shows greater fluctuations with most responses reflecting moderate impact with the exceptions of question 5, which addresses the extent that district leaders have

facilitated the use of district resources for the community and question 20, related to faculty and staff training and development.

The teacher panel means for the extent of implementation ranged from 2.60 to 4.20. Teachers' perceptions of implementation, while mainly at reasonably implemented with a systematic approach, showed greater fluctuation and lowest implementation levels at questions 21 and 22, which link to faculty and staff well-being. Teachers consistently perceived implementation as difficult with means from 2.40 to 3.25. Teacher's perception on the impact of implementation on collective efficacy also shows moderate to limited impact across the questions.

The similarity in responses for each of the panels as illustrated in the run charts suggests that while individual analysis of each question reveals the lack of consensus both within and among the groups, collectively, each group perceives the district almost identically. In addition, each of the panel groups perceive a strong to moderate impact on collective efficacy recognizing that this management practices are difficult to implement and aware that they have not yet deployed their approaches throughout the organization.

Table 4.55 provides the ascending rank order of means and standard deviations for the extent of implementation

| Table 4.55 — District C Ranked Aggregate Means and Standard Deviations for Extent of Implementation | | | | | |
|--|-----------------------|-----------|---|-----------------------|-----------|
| Implementation Means | | | Implementation Standard Deviations | | |
| Category.Item - Ques | Implementation | SD | Category.Item - Ques | Implementation | SD |
| 2.2 - 9 | 2.67 | 0.97 | 1.2 - 4 | 2.89 | 0.68 |
| 6.1 - 24 | 2.67 | 0.97 | 6.2 - 26 | 3.19 | 0.75 |
| 2.1 - 7 | 2.71 | 0.77 | 2.1 - 7 | 2.71 | 0.77 |
| 2.1 - 8 | 2.81 | 0.91 | 5.1 - 18 | 3.41 | 0.80 |
| 3.1 - 11 | 2.81 | 0.83 | 1.1 - 3 | 2.89 | 0.83 |
| 1.1 - 3 | 2.89 | 0.83 | 3.1 - 11 | 2.81 | 0.83 |
| 1.2 - 4 | 2.89 | 0.68 | 1.1 - 2 | 3.00 | 0.84 |
| 1.2 - 6 | 2.89 | 1.08 | 3.2 - 13 | 3.33 | 0.84 |
| 5.2 - 20 | 2.94 | 0.87 | 5.2 - 20 | 2.94 | 0.87 |
| 1.1 - 2 | 3.00 | 0.84 | 2.1 - 8 | 2.81 | 0.91 |
| 1.1 - 1 | 3.06 | 1.00 | 5.3 - 22 | 3.65 | 0.93 |
| 4.1 - 15 | 3.06 | 1.03 | 3.2 - 12 | 3.22 | 0.94 |
| 4.1 - 16 | 3.12 | 1.22 | 2.2 - 9 | 2.67 | 0.97 |
| 6.2 - 25 | 3.12 | 0.99 | 4.1 - 14 | 3.24 | 0.97 |
| 2.2 - 10 | 3.17 | 0.99 | 6.1 - 24 | 2.67 | 0.97 |
| 6.2 - 26 | 3.19 | 0.75 | 2.2 - 10 | 3.17 | 0.99 |
| 3.2 - 12 | 3.22 | 0.94 | 6.2 - 25 | 3.12 | 0.99 |
| 6.1 - 23 | 3.22 | 1.11 | 1.1 - 1 | 3.06 | 1.00 |
| 4.1 - 14 | 3.24 | 0.97 | 4.1 - 15 | 3.06 | 1.03 |
| 1.2 - 5 | 3.33 | 1.14 | 5.1 - 19 | 3.39 | 1.04 |
| 3.2 - 13 | 3.33 | 0.84 | 4.2 - 17 | 3.41 | 1.06 |
| 5.1 - 19 | 3.39 | 1.04 | 1.2 - 6 | 2.89 | 1.08 |
| 4.2 - 17 | 3.41 | 1.06 | 5.3 - 21 | 3.50 | 1.10 |
| 5.1 - 18 | 3.41 | 0.80 | 6.1 - 23 | 3.22 | 1.11 |
| 5.3 - 21 | 3.50 | 1.10 | 1.2 - 5 | 3.33 | 1.14 |
| 5.3 - 22 | 3.65 | 0.93 | 4.1 - 16 | 3.12 | 1.22 |

The ranking of the means for District C shows that Item 4.1, Measurement and Analysis of Organizational Performance; Item 1.1 represented by questions 2 and 3, Organizational Leadership; Item 1.2, Public Responsibility and Citizenship, questions 4 and 6; Item 2.1, Strategy Development for questions 7 and 8; Item 2.2,

Strategy Deployment, represented by question 9; Item 3.1, Knowledge of Student, Stakeholder and Market Needs and Expectation, question 11; Item 5.2, faculty Development and Training, question 20; and Item 6.1, Education Design and Delivery Processes, question 24 have a systematic approach that is reasonably implemented. Most of the top ranking items address senior leaders setting direction and establishing core values as well as developing action plans aligned to objectives, which are based on the needs and requirements of students and stakeholders. The data suggests that this district may be in the early stages of aligning and developing systematic approaches, since the practices ranked highest may occur fairly early in an organization's journey toward implementing the Criteria.

The two areas that ranked lowest in implementation were questions 21 and 22 linking to Item 5.3, Faculty and Staff Well-Being and Satisfaction indicating that this area that may need more time or better processes before reaching full deployment.

Table 4.56 provides the ascending rank order of means and standard deviations for the difficulty of implementation.

Table 4.56 — District C Ranked Aggregate Means and Standard Deviations for Difficulty of Implementation

| Difficulty Means | | | Difficulty Standard Deviations | | |
|----------------------|------------|------|--------------------------------|------------|------|
| Category.Item - Ques | Difficulty | SD | Category.Item - Ques | Difficulty | SD |
| 1.1 - 2 | 2.56 | 0.62 | 6.2 - 25 | 2.75 | 0.45 |
| 1.1 - 1 | 2.59 | 0.62 | 5.2 - 20 | 2.72 | 0.46 |
| 1.2 - 6 | 2.63 | 0.81 | 3.2 - 12 | 2.88 | 0.49 |
| 2.1 - 8 | 2.63 | 0.81 | 5.1 - 19 | 3.00 | 0.50 |
| 5.2 - 20 | 2.72 | 0.46 | 6.1 - 24 | 2.83 | 0.51 |
| 6.2 - 25 | 2.75 | 0.45 | 5.3 - 21 | 2.81 | 0.54 |
| 6.2 - 26 | 2.75 | 0.68 | 3.1 - 11 | 2.94 | 0.56 |
| 3.2 - 13 | 2.76 | 0.75 | 4.1 - 16 | 3.06 | 0.56 |
| 1.1 - 3 | 2.78 | 0.88 | 4.1 - 15 | 2.88 | 0.60 |
| 5.3 - 21 | 2.81 | 0.54 | 5.1 - 18 | 3.12 | 0.60 |
| 1.2 - 5 | 2.82 | 0.95 | 6.1 - 23 | 2.88 | 0.60 |
| 2.2 - 10 | 2.82 | 0.64 | 1.1 - 1 | 2.59 | 0.62 |
| 2.2 - 9 | 2.83 | 0.62 | 1.1 - 2 | 2.56 | 0.62 |
| 6.1 - 24 | 2.83 | 0.51 | 2.2 - 9 | 2.83 | 0.62 |
| 2.1 - 7 | 2.88 | 0.70 | 2.2 - 10 | 2.82 | 0.64 |
| 3.2 - 12 | 2.88 | 0.49 | 4.1 - 14 | 2.94 | 0.66 |
| 4.1 - 15 | 2.88 | 0.60 | 6.2 - 26 | 2.75 | 0.68 |
| 5.3 - 22 | 2.88 | 0.72 | 2.1 - 7 | 2.88 | 0.70 |
| 6.1 - 23 | 2.88 | 0.60 | 5.3 - 22 | 2.88 | 0.72 |
| 3.1 - 11 | 2.94 | 0.56 | 3.2 - 13 | 2.76 | 0.75 |
| 4.1 - 14 | 2.94 | 0.66 | 4.2 - 17 | 3.00 | 0.76 |
| 4.2 - 17 | 3.00 | 0.76 | 1.2 - 6 | 2.63 | 0.81 |
| 5.1 - 19 | 3.00 | 0.50 | 2.1 - 8 | 2.63 | 0.81 |
| 4.1 - 16 | 3.06 | 0.56 | 1.1 - 3 | 2.78 | 0.88 |
| 5.1 - 18 | 3.12 | 0.60 | 1.2 - 5 | 2.82 | 0.95 |

The level of difficulty is ranked from easy to difficult. Five of the questions in the ranking also appear high on implementation and are not perceived as difficult. The ranking also reveals that District C perceived all of the areas under study as difficult to implement. Since all of the items are difficult with very little difference between the top and bottom ranked item, it is difficult to identify why one question would rank higher than another.

Table 4.57 provides the ascending rank order of means and standard deviations for the impact of implementation on collective teacher efficacy.

| Table 4.57— District C Ranked Aggregate Means and Standard Deviations for Impact of Implementation on Collective Teacher Efficacy | | | | | |
|--|---------------|-----------|-----------------------------------|---------------|-----------|
| Impact Means | | | Impact Standard Deviations | | |
| Category.Item - Ques | Impact | SD | Category.Item - Ques | Impact | SD |
| 5.2 - 20 | 1.89 | 0.76 | 1.1 - 2 | 2.33 | 0.49 |
| 6.1 - 24 | 2.06 | 0.80 | 6.2 - 25 | 2.19 | 0.54 |
| 2.2 - 9 | 2.11 | 0.90 | 3.2 - 12 | 2.22 | 0.55 |
| 2.1 - 8 | 2.13 | 0.62 | 5.1 - 18 | 2.29 | 0.59 |
| 2.2 - 10 | 2.18 | 0.64 | 5.1 - 19 | 2.35 | 0.61 |
| 6.2 - 25 | 2.19 | 0.54 | 2.1 - 8 | 2.13 | 0.62 |
| 1.1 - 1 | 2.22 | 0.73 | 6.1 - 23 | 2.53 | 0.62 |
| 2.1 - 7 | 2.22 | 0.81 | 2.2 - 10 | 2.18 | 0.64 |
| 3.2 - 12 | 2.22 | 0.55 | 4.1 - 15 | 2.24 | 0.66 |
| 3.1 - 11 | 2.24 | 0.83 | 6.2 - 26 | 2.31 | 0.70 |
| 4.1 - 15 | 2.24 | 0.66 | 1.1 - 1 | 2.22 | 0.73 |
| 4.1 - 14 | 2.28 | 0.83 | 4.2 - 17 | 2.44 | 0.73 |
| 5.1 - 18 | 2.29 | 0.59 | 5.3 - 21 | 2.50 | 0.73 |
| 6.2 - 26 | 2.31 | 0.70 | 5.2 - 20 | 1.89 | 0.76 |
| 1.1 - 2 | 2.33 | 0.49 | 4.1 - 16 | 2.33 | 0.77 |
| 4.1 - 16 | 2.33 | 0.77 | 1.2 - 4 | 2.39 | 0.78 |
| 5.1 - 19 | 2.35 | 0.61 | 1.2 - 6 | 2.41 | 0.80 |
| 1.2 - 4 | 2.39 | 0.78 | 6.1 - 24 | 2.06 | 0.80 |
| 1.2 - 6 | 2.41 | 0.80 | 2.1 - 7 | 2.22 | 0.81 |
| 4.2 - 17 | 2.44 | 0.73 | 5.3 - 22 | 2.44 | 0.81 |
| 5.3 - 22 | 2.44 | 0.81 | 1.2 - 5 | 2.89 | 0.83 |
| 1.1 - 3 | 2.50 | 0.86 | 3.1 - 11 | 2.24 | 0.83 |
| 5.3 - 21 | 2.50 | 0.73 | 4.1 - 14 | 2.28 | 0.83 |
| 6.1 - 23 | 2.53 | 0.62 | 1.1 - 3 | 2.50 | 0.86 |
| 3.2 - 13 | 2.59 | 0.87 | 3.2 - 13 | 2.59 | 0.87 |
| 1.2 - 5 | 2.89 | 0.83 | 2.2 - 9 | 2.11 | 0.90 |

For impact on collective efficacy, the means ranged from 1.89 to 2.89 with most of the means below 2.50 indicating that all of the areas had a moderate impact. Six out of ten of the areas with the strongest impact on collective efficacy are also the areas with the greatest extent of implementation. Of those questions with the greatest implementation and strongest impact, four are also more difficult to implement.

The level of agreement between the panels on the extent of implementation, level of difficulty, and impact on collective efficacy indicate that this district has systematic approach for all of the Baldrige Criteria Items some of which are more effective than others. This district is probably in the early stages of developing systems and processes for improving the efficiency and effectiveness of district operations. The approaches developed by this organization also appear to be in the early stages of aligning to its goals and objectives. The district's approaches may be deployed but still have gaps in approach and/or deployment.

Summary of Research Question 2

Research question 2 asked, "Do differences exist within each district between/among and within panel groups (central office leaders, principals, and teachers) in the perceptions of the extent of the implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy? What this question explored is the extent of agreement within and between/among the primary work groups of a school district, central office administrators, campus principals, and classroom teachers and whether the

implementation of the Criteria as framework for an aligned, focused, and integrated system impacts the collective efficacy of classroom teachers. Since this question examined panel responses from each district rather than the aggregate of all of the districts, the varying levels of implementation became quite evident. Table 4.58 illustrates the perceptions of the district panel groups of the extent of implementation.

| Table 4.58 —Ranked District Aggregate Means for Extent of Implementation | | | | | |
|---|------|-------------------|------|-------------------|------|
| <i>Extent of Implementation Scale</i> | | | | | |
| 1. Systematic approach, fully integrated and implemented, very strong fact based cycles of improvement 2. Systematic approach, well integrated and implemented 3. Systematic approach, reasonably implemented 4. Systematic approach, early stages of planning and implementation 5. No systematic approach 6. Not observed (NO) | | | | | |
| District A | | District B | | District C | |
| 4.1 - 15 | 1.86 | 4.1 - 16 | 1.33 | 2.2 - 9 | 2.67 |
| 4.1 - 16 | 1.95 | 5.2 - 20 | 1.33 | 6.1 - 24 | 2.67 |
| 4.1 - 14 | 1.95 | 4.1 - 15 | 1.43 | 2.1 - 7 | 2.71 |
| 1.1 - 1 | 2.00 | 1.1 - 3 | 1.52 | 2.1 - 8 | 2.81 |
| 2.2 - 10 | 2.00 | 4.2 - 17 | 1.57 | 3.1 - 11 | 2.81 |
| 2.2 - 9 | 2.05 | 1.1 - 1 | 1.86 | 1.1 - 3 | 2.89 |
| 1.1 - 2 | 2.05 | 1.2 - 6 | 1.86 | 1.2 - 4 | 2.89 |
| 2.1 - 7 | 2.05 | 2.2 - 10 | 1.86 | 1.2 - 6 | 2.89 |
| 1.1 - 3 | 2.10 | 1.2 - 4 | 1.90 | 5.2 - 20 | 2.94 |
| 6.1 - 24 | 2.10 | 6.1 - 23 | 1.90 | 1.1 - 2 | 3.00 |
| 4.2 - 17 | 2.10 | 4.1 - 14 | 2.00 | 1.1 - 1 | 3.06 |
| 1.2 - 6 | 2.14 | 2.1 - 8 | 2.05 | 4.1 - 15 | 3.06 |
| 5.2 - 20 | 2.14 | 1.1 - 2 | 2.10 | 4.1 - 16 | 3.12 |
| 1.2 - 5 | 2.15 | 2.1 - 7 | 2.10 | 6.2 - 25 | 3.12 |
| 5.1 - 18 | 2.24 | 3.2 - 12 | 2.10 | 2.2 - 10 | 3.17 |
| 6.2 - 26 | 2.24 | 6.2 - 25 | 2.10 | 6.2 - 26 | 3.19 |
| 1.2 - 4 | 2.24 | 2.2 - 9 | 2.14 | 3.2 - 12 | 3.22 |
| 5.1 - 19 | 2.29 | 6.1 - 24 | 2.14 | 6.1 - 23 | 3.22 |
| 6.2 - 25 | 2.32 | 6.2 - 26 | 2.14 | 4.1 - 14 | 3.24 |
| 2.1 - 8 | 2.33 | 1.2 - 5 | 2.33 | 1.2 - 5 | 3.33 |
| 3.2 - 12 | 2.33 | 5.1 - 18 | 2.33 | 3.2 - 13 | 3.33 |
| 3.2 - 13 | 2.38 | 5.3 - 22 | 2.38 | 5.1 - 19 | 3.39 |
| 6.1 - 23 | 2.43 | 5.3 - 21 | 2.52 | 4.2 - 17 | 3.41 |
| 3.1 - 11 | 2.48 | 3.1 - 11 | 2.53 | 5.1 - 18 | 3.41 |
| 5.3 - 21 | 2.81 | 3.2 - 13 | 2.67 | 5.3 - 21 | 3.50 |
| 5.3 - 22 | 2.90 | 5.1 - 19 | 2.67 | 5.3 - 22 | 3.65 |

As the data indicates, each district has a systematic approach to address each of the Items of the Criteria. What is extremely important to keep in mind is that each district has proceeded with implementation of the Criteria within very different contexts and has prioritized key areas for implementation based on the needs and requirements of the district. In terms of the Baldrige Criteria, this is the first critical component of a high performing organization. Without a systematic approach in place, efforts become scattered and misaligned.

The ranking of the aggregate means of the questions provides insight into those Items with the greatest level of deployment and would allow the district to compare its strategic priorities and deployment focus with the results of the perceptions within and between/among panel groups in the district. All of the Items show deployment from the early stages to a systematic approach that is fully integrated and implemented with very strong fact based cycles of improvement. As a result, the ranking should be viewed from a perspective of where the district lies on a continuum of implementation as discussed earlier in this chapter.

Several recurring themes emerged across the Categories and Items and include:

1. The central office panel reached consensus more often across all scales (extent of implementation, difficulty of implementation, and impact on collective teacher efficacy).

2. Variance in responses within panel groups occurred more often in the principal and teacher panels.
3. The central office and principal panels perceive higher levels of implementation.
4. As the level of implementation increased, the perception of the impact on collective efficacy also increased with less variance and consensus.
5. Although implementation may be difficult, it is achieved, and has a strong to moderate impact on collective teacher efficacy.

Research question 3 will examine what similarities and differences exist between districts in perceptions of the level of difficulty in implementing the Criteria and the impact of the implementation of the Criteria on collective teacher efficacy.

Results and Analysis of Research Question 3

Research question 3 asked, “What similarities and differences exist between districts in perceptions of the level of difficulty in implementing the Criteria and the impact of the implementation of the Criteria on collective teacher efficacy? This research question used the district aggregate data and the aggregate data of all study districts reporting the mean and standard deviation. The analysis of the results related to research question 2 references each district as A, B, or C. The analysis will also focus on questions that link to the fourteen items from the six categories of the Baldrige Education Criteria for Performance Excellence.

The Likert scale for the difficulty of implementation gave respondents the following choices:

1. Very easy
2. Easy
3. Difficult
4. Very difficult
5. Not observed

These choices forced respondents to decide if implementation was easy or difficult with qualifiers for greater ease or difficulty if the management practice reflected in the question had been observed. For the impact on collective teacher efficacy, the scale offered the following responses:

1. Strong impact
2. Moderate impact
3. Limited impact
4. No impact
5. Not observed

Table 4.59 reports the data for research question 3.

| Table 4.59— Research Question 3 Difficulty of Implementation and the Impact of Implementation of the Criteria on Collective Teacher Efficacy | | | | |
|--|--|------|---|------|
| | Difficulty of Implementation 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | Impact 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | |
| 1. To what extent have district leaders established core values and performance expectations? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.67 | .48 | 2.05 | .50 |
| District B | 2.81 | .51 | 1.43 | .75 |
| District C | 2.72 | .83 | 2.22 | .73 |
| Aggregate | 2.73 | .61 | 1.88 | .74 |
| 2. To what extent have district leaders communicated the core values and performance expectations? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.62 | .59 | 1.81 | .51 |
| District B | 2.19 | .60 | 1.62 | .92 |
| District C | 2.56 | .62 | 2.33 | .49 |
| Aggregate | 2.45 | .62 | 1.90 | .73 |
| 3. To what extent have district leaders reviewed district performance to assess progress of goals? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.76 | .54 | 1.81 | .40 |
| District B | 2.38 | .50 | 1.48 | .68 |
| District C | 2.78 | .88 | 2.50 | .86 |
| Aggregate | 2.63 | .66 | 1.90 | .77 |
| 4. To what extent have district leaders examined the changing needs and capabilities of the district to ensure continuous improvement? | | | | |
| | Mean | SD | Mean | SD |
| District A | | | 1.90 | .54 |
| District B | | | 1.71 | .64 |
| District C | | | 2.39 | .78 |
| Aggregate | | | 1.98 | .70 |
| 5. To what extent have district leaders facilitated the use of district resources (e.g., facilities, extended outreach programs, community education, etc.) for the community? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.71 | .78 | 2.05 | .86 |
| District B | 2.95 | .67 | 2.81 | 1.08 |
| District C | 2.94 | 1.06 | 2.89 | .83 |
| Aggregate | 2.87 | .83 | 2.57 | 1.00 |
| 6. To what extent have district leaders ensured ethical practices in all interactions with students and stakeholders? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.19 | .68 | 1.43 | .93 |
| District B | 2.33 | .48 | 1.81 | .75 |
| District C | 2.89 | 1.08 | 2.56 | .98 |
| Aggregate | 2.45 | .81 | 1.90 | .99 |

| Table 4.59 —Continued | | | | |
|--|--|------|---|------|
| | Difficulty of Implementation 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | Impact 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | |
| 7. To what extent have district leaders facilitated a planning process that involves all stakeholders? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.86 | .73 | 1.71 | .46 |
| District B | 3.05 | .74 | 2.19 | 1.08 |
| District C | 3.00 | .84 | 2.22 | .81 |
| Aggregate | 2.97 | .76 | 2.03 | .84 |
| 8. To what extent have district leaders considered student and stakeholder needs, expectations, and opportunities in the planning process? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.71 | .46 | 1.95 | .50 |
| District B | 2.86 | .73 | 1.81 | .81 |
| District C | 2.89 | 1.08 | 2.44 | 1.10 |
| Aggregate | 2.82 | .77 | 2.05 | .85 |
| 9. To what extent have district leaders developed and implemented action plans to achieve objectives? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.71 | .56 | 1.19 | .40 |
| District B | 3.10 | .70 | 1.95 | .80 |
| District C | 2.83 | .62 | 2.11 | .90 |
| Aggregate | 2.88 | .64 | 1.73 | .82 |
| 10. To what extent have district leaders identified performance measures for tracking the progress of action plans? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.95 | .38 | 2.00 | .45 |
| District B | 3.00 | .71 | 1.86 | .65 |
| District C | 2.94 | .80 | 2.33 | .91 |
| Aggregate | 2.97 | .64 | 2.05 | .70 |
| 11. To what extent has the district developed strategies to determine key student needs, expectations, and stakeholder satisfaction? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.81 | .40 | 2.05 | .59 |
| District B | 2.86 | .36 | 2.10 | .70 |
| District C | 3.06 | .73 | 2.39 | 1.04 |
| Aggregate | 2.90 | .51 | 2.17 | .78 |
| 12. To what extent has the district built relationships to enhance student performance and retain students? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.81 | .68 | 2.05 | .59 |
| District B | 3.19 | .60 | 2.05 | .97 |
| District C | 3.00 | .69 | 2.22 | .55 |
| Aggregate | 3.00 | .66 | 2.10 | .73 |
| 13. To what extent has the district collected information from students and stakeholders to improve the district and its services? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.67 | .48 | 2.05 | .59 |
| District B | 2.76 | .83 | 2.24 | 1.22 |
| District C | 2.89 | .90 | 2.72 | 1.02 |
| Aggregate | 2.77 | .74 | 2.32 | 1.00 |

| Table 4.59 — Continued | | | | |
|---|--|------|---|------|
| | Difficulty of Implementation 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | Impact 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | |
| 14. To what extent has the district gathered and integrated data and information from many sources to support key processes and action plans? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.67 | .58 | 1.24 | .44 |
| District B | 2.71 | .72 | 1.95 | .67 |
| District C | 3.06 | .80 | 2.50 | .99 |
| Aggregate | 2.80 | .71 | 1.87 | .87 |
| 15. To what extent has the district analyzed data and reviewed district performance as it relates to goals and action plans? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.91 | .65 | 1.62 | .96 |
| District B | 2.57 | .81 | 1.43 | .60 |
| District C | 2.89 | .76 | 2.39 | .92 |
| Aggregate | 2.77 | .74 | 1.78 | .90 |
| 16. To what extent has the district disaggregated and analyzed data to modify and improve instruction to enhance student achievement? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.90 | .77 | 1.48 | .98 |
| District B | 2.33 | .66 | 1.19 | .40 |
| District C | 3.17 | .71 | 2.33 | .77 |
| Aggregate | 2.78 | .78 | 1.63 | .88 |
| 17. To what extent has the district employed an effective system for making data and information available? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.76 | .70 | 1.57 | .98 |
| District B | 2.38 | .74 | 1.29 | .46 |
| District C | 3.33 | 1.03 | 2.72 | 1.07 |
| Aggregate | 2.80 | .90 | 1.82 | 1.05 |
| 18. To what extent has the district organized and managed work and jobs to promote cooperation, initiative, innovation, and organizational culture? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.95 | .67 | 1.33 | .48 |
| District B | 2.95 | .67 | 2.43 | .98 |
| District C | 3.22 | .73 | 2.44 | .86 |
| Aggregate | 3.03 | .69 | 1.05 | .95 |
| 19. To what extent has the district motivated faculty and staff to develop and utilize their full potential? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.95 | .69 | 1.86 | .65 |
| District B | 3.24 | .77 | 2.24 | 1.18 |
| District C | 3.11 | .68 | 2.50 | .86 |
| Aggregate | 3.10 | .71 | 2.18 | .95 |

| Table 4.59 —Continued | | | | |
|--|--|-----|---|------|
| | Difficulty of Implementation 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | Impact 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | |
| 20. To what extent has the district addressed and delivered faculty and staff education, training, and development that is aligned to district goals, action plans, and student achievement? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.57 | .60 | 1.43 | .68 |
| District B | 2.33 | .66 | 1.43 | .51 |
| District C | 2.72 | .46 | 1.89 | .76 |
| Aggregate | 2.53 | .60 | 1.57 | .67 |
| 21. To what extent has the district ensured workplace health, safety, and ergonomics? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.95 | .59 | 1.90 | .62 |
| District B | 2.67 | .80 | 2.19 | .87 |
| District C | 3.06 | .87 | 2.78 | 1.06 |
| Aggregate | 2.88 | .76 | 2.27 | .92 |
| 22. To what extent has the district employed a system to assess the key factors that affect faculty and staff well-being, satisfaction, and motivation? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.76 | .44 | 2.00 | .63 |
| District B | 2.86 | .91 | 2.38 | 1.12 |
| District C | 3.11 | .96 | 2.72 | 1.13 |
| Aggregate | 2.90 | .80 | 2.35 | 1.01 |
| 23. To what extent has the district considered student differences when developing educational programs that engage students in active learning? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.95 | .59 | 1.33 | .48 |
| District B | 2.86 | .65 | 1.43 | .60 |
| District C | 3.00 | .77 | 2.67 | .84 |
| Aggregate | 2.93 | .66 | 1.77 | .87 |
| 24. To what extent has the district employed a process for developing educational programs aligned to district and state goals? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.67 | .48 | 1.19 | .40 |
| District B | 2.86 | .78 | 1.71 | .96 |
| District C | 2.83 | .51 | 2.06 | .80 |
| Aggregate | 2.73 | .61 | 1.63 | .82 |
| 25. To what extent has the district employed a process to measure effectiveness of the implementation of educational programs? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.95 | .69 | 2.05 | .86 |
| District B | 2.90 | .62 | 2.19 | .98 |
| District C | 3.00 | .84 | 2.50 | 1.04 |
| Aggregate | 2.95 | .71 | 2.23 | .96 |
| 26. To what extent has the district provided support processes that ensure success of educational programs and student services? | | | | |
| | Mean | SD | Mean | SD |
| District A | 2.81 | .75 | 1.76 | .44 |
| District B | 2.81 | .60 | 2.14 | .79 |
| District C | 3.00 | .97 | 2.61 | 1.09 |
| Aggregate | 2.87 | .77 | 2.15 | .86 |

The study districts reported that most of the integrated management practices reflected in the questions were difficult to implement. The only differences occurred in questions 2, 3, 6, 16, 17, and 20. In questions 2 and 3, which link to organizational leadership, District B reported that these practices were easy to implement; however, the aggregate data across districts revealed that implementation was difficult with standard deviations of .62 and .66.

Question 6, which asks for perceptions of the extent district leaders have facilitated the use of district resources, shows that Districts A and B perceived implementation as easy while District C reported implementation as difficult but with variance in responses ($SD = 1.08$). The aggregate of the districts shows implementation as easy where $SD = .81$. For questions 16 and 17, and 20 District B reported implementation as easy while Districts A and C as well as the aggregate of the districts shows implementation as difficult.

The data on perceptions of the impact on collective teacher efficacy showed that the study districts reported a moderate impact for each question with the exception of 16, 20, and 24. The extent to which districts disaggregate and analyze data to modify and improve instruction (question 16), address faculty and staff education, training, and development aligned to district goals (question 20), and

employ processes for developing educational programs aligned to district and state goals has a strong impact on collective teacher efficacy as indicated by the aggregate data of the districts.

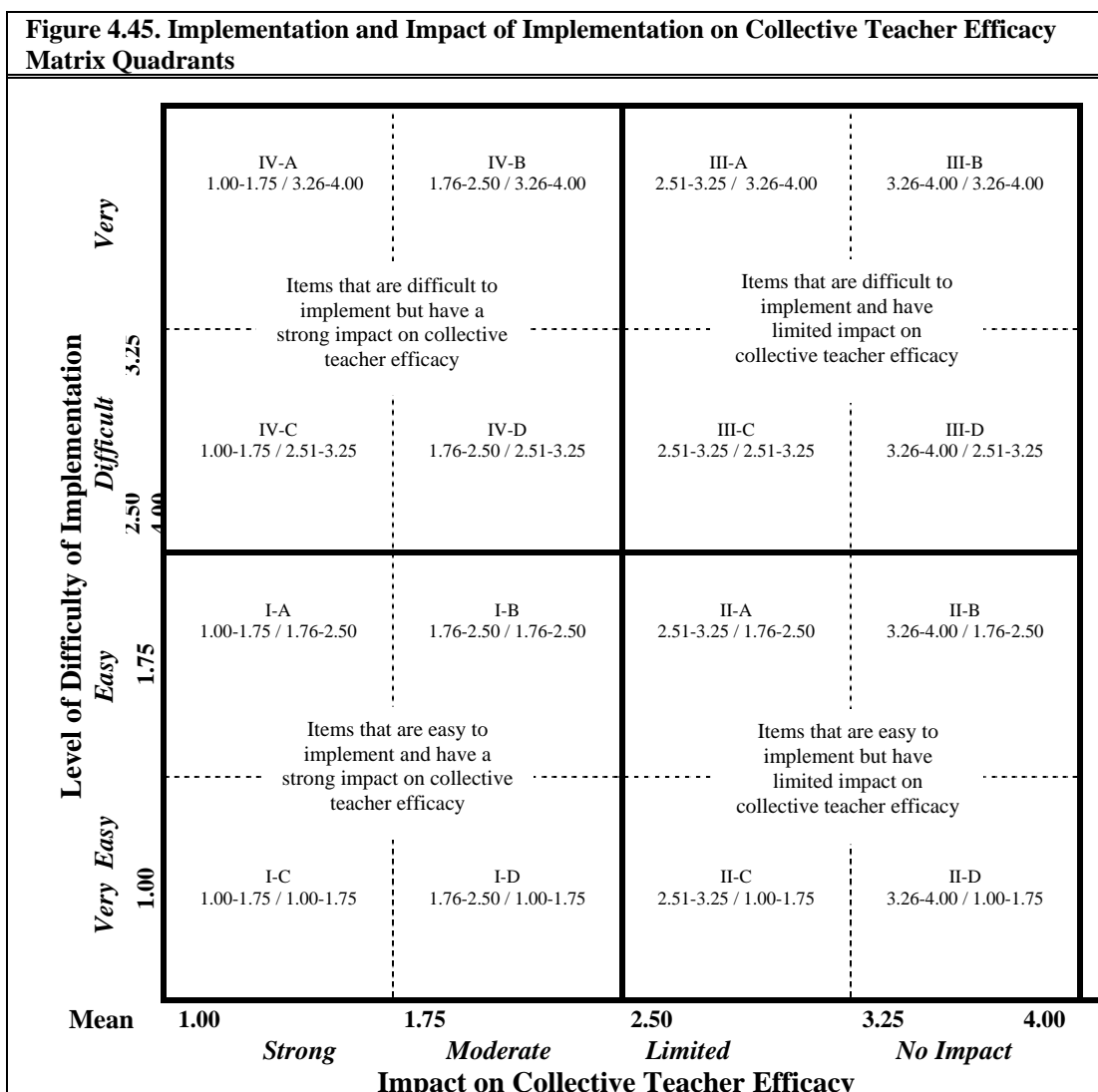
For each of the remaining questions, one or two districts showed a median response that reflected a perception of strong impact on collective teacher efficacy. However, these differences did not change the aggregate response of all the districts. Question 23, which asks to what extent the district has considered student differences when developing educational programs that engage students in active learning, revealed that each district responded differently from strong to limited impact on collective efficacy. The aggregate of the districts for question 23 showed moderate impact.

Overall, the study districts perceived the management processes represented in the Baldrige Criteria were difficult to implement, but had a moderate to strong impact on collective efficacy. Differences between the districts were minimal on the difficulty of implementation scale; and, while the impact scale showed differences

between districts, these differences were either between strong or moderate impact on collective teacher efficacy.

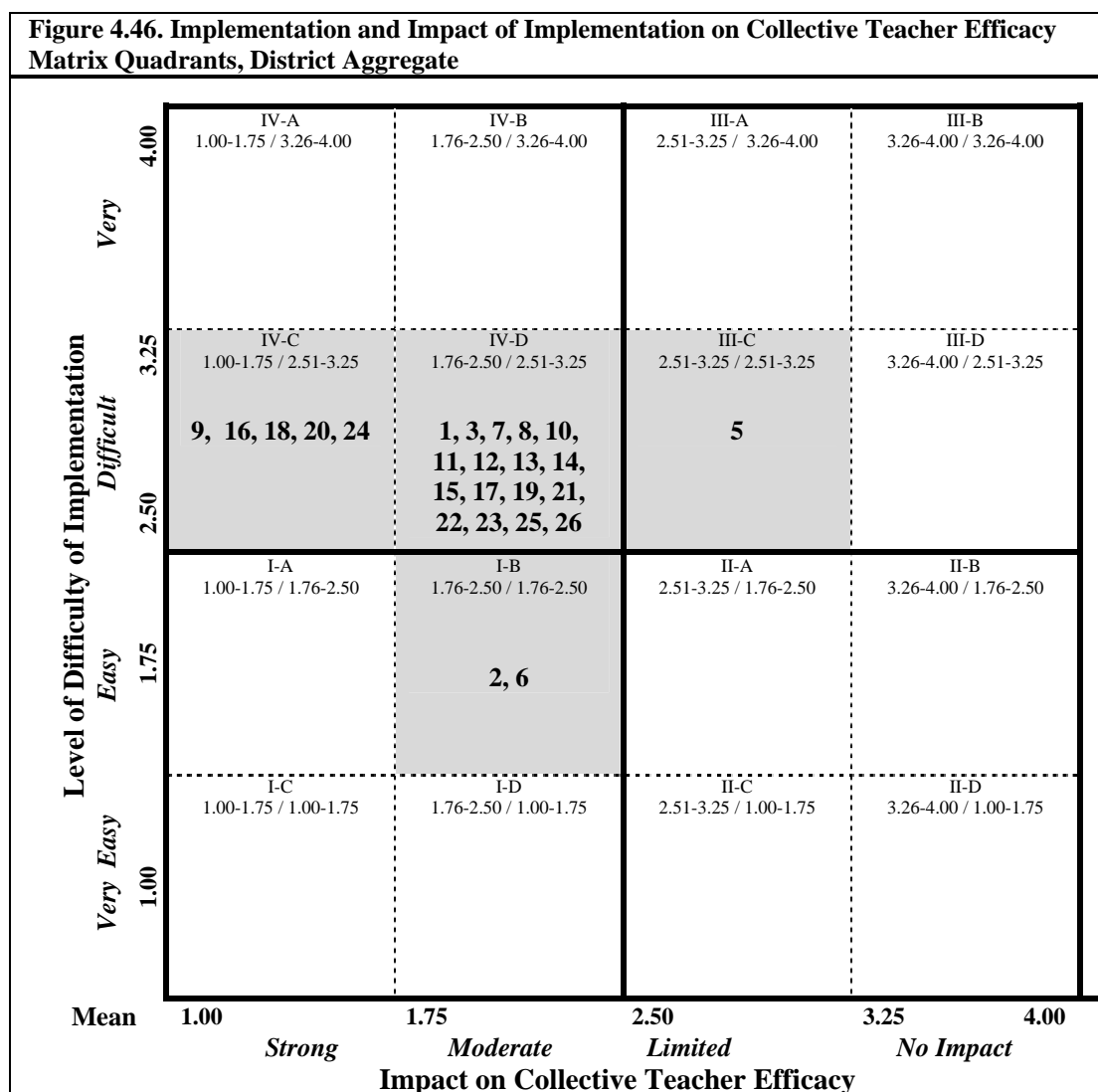
Districts just beginning to develop an integrated management system through the application of the Criteria for Performance Excellence often ask how and where to begin the process. Another objective of this study was to generate a matrix that would define those management systems that had the greatest impact on collective teacher efficacy and ultimately student achievement but were easy to implement providing a foothold for the emerging integrated system.

Using the aggregate data on the difficulty of implementation and the impact on collective teacher efficacy, a matrix could be developed demonstrating which key areas would be easy to implement and have a strong impact on collective efficacy. Figure 4.45 displays the subdivided matrix, which divides the matrix into four quadrants with four additional cells in each quadrant.



The shaded portion of the cell in the first quadrant indicates that the mean for the aggregate responses measuring the difficulty of implementation was between 1.00 and 1.75, and the mean for the impact on collective teacher efficacy was also between 1.00 and 1.75. This differentiation reveals more specifically the extent of the relationship between the two measures.

Based on the data collected from the three study districts, the matrix shown in Figure 4.46 reflects where each of the 26 questions fell in the matrix for the aggregated data.



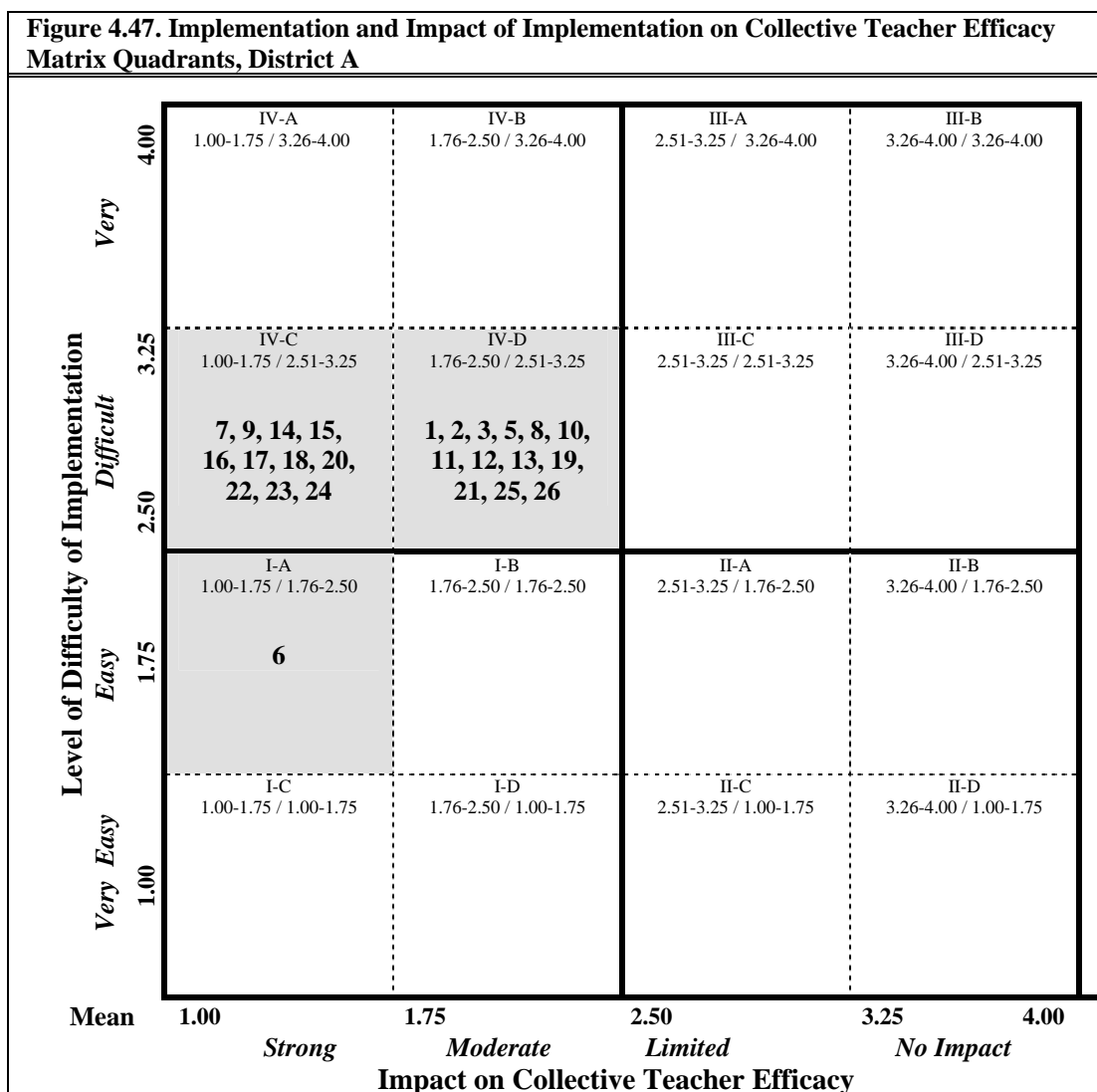
For the aggregated district data, the majority of the questions appear in quadrant III-B where these areas are difficult to implement but have a moderate

impact on collective teacher efficacy. Question 2, the extent district leaders communicate core values and performance expectations is easy to implement, and question 6 related to the extent that district leaders ensure ethical practices, are easy to implement and have a moderate impact on collective efficacy. Question 5, the extent district leaders facilitate the use of district resources for the community is difficult to implement and has limited impact on collective efficacy. While difficult to implement, the following questions have a strong impact on collective teacher efficacy:

- Questions 9 related to deployment of action plans;
- Question 16 on the use of disaggregated data to improve instruction;
- Question 18 related to cooperation, innovation, and organizational culture;
- Question 20 addressing faculty and staff training and development;
- Question 24, which considers whether the district has a process to measure the effectiveness of the implementation of educational programs.

Based on the responses from the district for this study, the above areas, although difficult to implement, may provide the greatest leverage in impacting the collective efficacy of teachers, which in turn has the greatest potential for impacting student achievement as reported in the research on collective efficacy. (Bandura, 2000, 1997; Goddard, 2002, 2001, 2000; Goddard, Hoy & Hoy, 2000; Hoy,

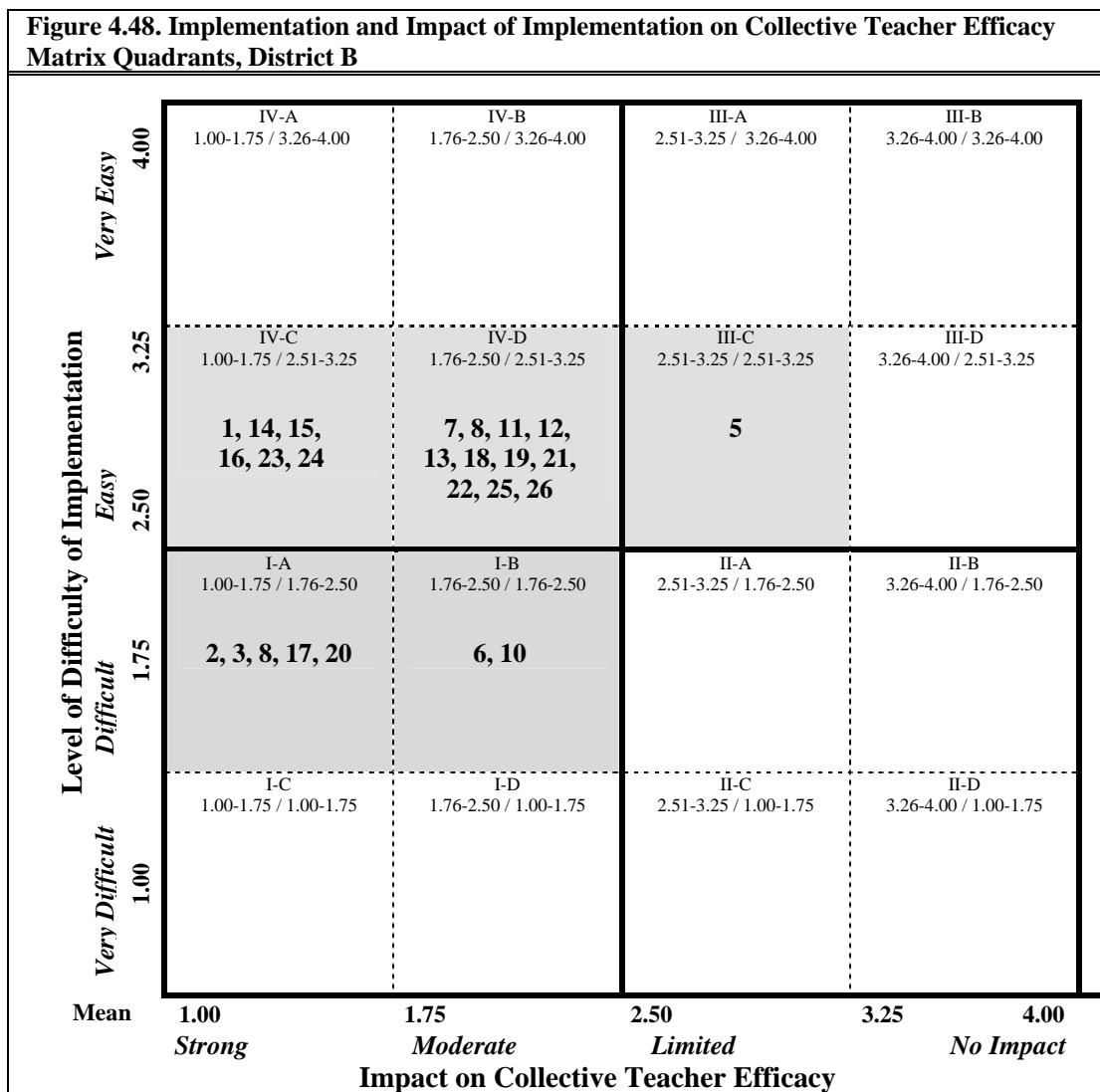
Sweetland, Smith, 2002). Figure 4.47 illustrates the results for District A and how each question aligns to the matrix.



The data for District A show that the easiest area to implement is question 6, which addresses the extent to which district leaders ensure ethical practices in all interactions with students and stakeholders linked to Item 1.2, Public Responsibility

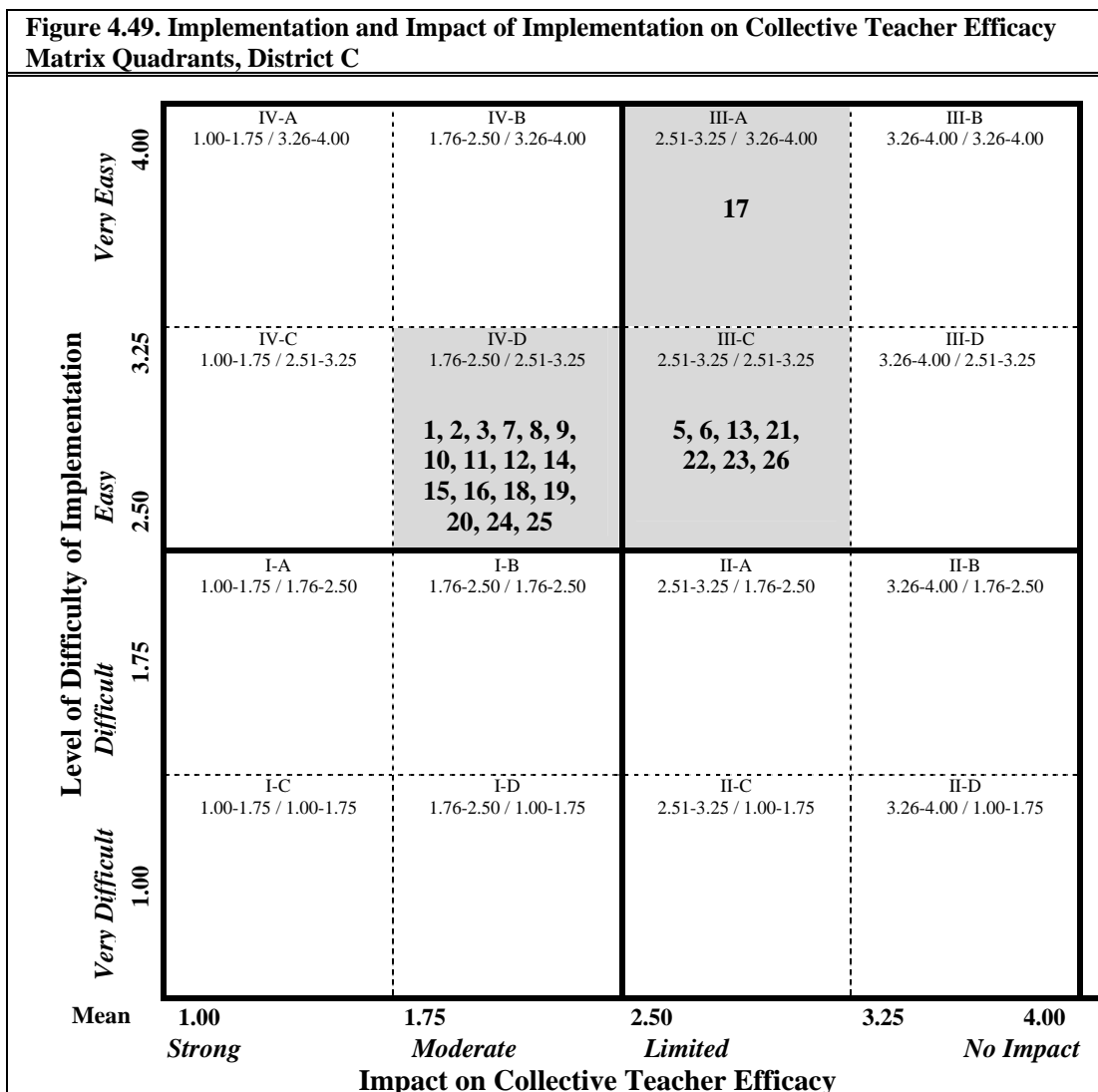
and Citizenship. The remainder of the Baldrige Items represented by the questions are difficult to implement but have a strong to moderate impact on collective efficacy.

Figure 4.48 illustrates the results for District B and how each question aligns to the matrix.



District B data reveal that all of the areas have a strong to moderate impact on collective efficacy, except for question 5. However, question 2, 3, 9, 17, and 20 have a strong impact on collective efficacy. These questions relate to the role of senior leaders in communicating core values, reviewing district performance, and implementing action plans to achieve objectives; the effectiveness of data availability; and faculty and staff training aligned to district goals, action plans, and student achievement.

District C reported implementation as primarily in the early stages but with a systematic approach in place while the other two districts reported a greater extent of implementation. The district's level of maturity in deployment of its approaches appears to have an influence on the perceptions of the panel members on the impact of implementation on collective efficacy. All of the areas are difficult to very difficult to implement with eight areas having only limited impact on collective efficacy. Figure 4.49 illustrates the results for District C and how each question aligns to the matrix.



The most difficult area reported, question 17, relates to the extent that the district has employed an effective system for making needed data and information available. Most of the areas do, however, have a moderate impact on collective efficacy as reported by the panel members in this district.

Summary of Research Question 3

Research question 3 focused on what similarities and differences exist between districts in perceptions of the level of difficulty in implementing the Criteria and the impact of the implementation of the Criteria on collective teacher efficacy. The aggregated data and the individual district data reveals that although implementation of the management processes represented by the Baldrige Criteria are difficult to implement, each has an impact on collective efficacy. The degree of impact appears to correlate to the extent of deployment of the management approaches developed by each district and the level of training/professional development on the Criteria and/or continuous improvement strategies.

Figures 4.45 and 4.46 visually summarize and emphasize the perceived degree of difficulty and the level of impact of implementation on collective teacher efficacy. The breakdown of the scale used in the matrix showing implementation and impact of implementation on collective teacher efficacy was color-coded to illustrate the data. Table 4.60 shows the aggregate means of all of the districts and each individual district for the difficulty of implementation.

| Table 4.60— Aggregate Ranked Difficulty of Implementation Means | | | | | | | |
|--|------|------------|------|------------|------|------------|------|
| <i>Difficulty of Implementation</i> 1. Very Easy 2. Easy 3. Difficult 4. Very Difficult 5. Not Observed (NO) | | | | | | | |
| The following color codes represent the bands for each scale score: | | | | | | | |
| 1.00-1.75 | | 1.76-2.50 | | 2.51-3.25 | | 3.26-4.00 | |
| Aggregate of Districts | | District A | | District B | | District C | |
| 1.2 - 6 | 2.36 | 1.2 - 6 | 2.19 | 1.1 - 2 | 2.19 | 1.1 - 2 | 2.56 |
| 1.1 - 2 | 2.45 | 5.2 - 20 | 2.57 | 1.2 - 6 | 2.33 | 1.1 - 1 | 2.59 |
| 5.2 - 20 | 2.53 | 1.2 - 5 | 2.60 | 4.1 - 16 | 2.33 | 1.2 - 6 | 2.63 |
| 1.1 - 3 | 2.63 | 1.1 - 2 | 2.62 | 5.2 - 20 | 2.33 | 2.1 - 8 | 2.63 |
| 4.2 - 17 | 2.64 | 4.2 - 17 | 2.65 | 1.1 - 3 | 2.38 | 5.2 - 20 | 2.72 |
| 1.1 - 1 | 2.69 | 1.1 - 1 | 2.67 | 4.2 - 17 | 2.38 | 6.2 - 25 | 2.75 |
| 3.2 - 13 | 2.69 | 3.2 - 13 | 2.67 | 5.3 - 21 | 2.55 | 6.2 - 26 | 2.75 |
| 4.1 - 15 | 2.69 | 4.1 - 14 | 2.67 | 4.1 - 15 | 2.57 | 3.2 - 13 | 2.76 |
| 4.1 - 16 | 2.71 | 6.1 - 24 | 2.67 | 5.3 - 22 | 2.63 | 1.1 - 3 | 2.78 |
| 5.3 - 21 | 2.73 | 6.2 - 26 | 2.70 | 3.2 - 13 | 2.65 | 5.3 - 21 | 2.81 |
| 2.1 - 8 | 2.74 | 2.1 - 8 | 2.71 | 4.1 - 14 | 2.71 | 1.2 - 5 | 2.82 |
| 1.2 - 5 | 2.75 | 2.2 - 9 | 2.71 | 6.1 - 24 | 2.71 | 2.2 - 10 | 2.82 |
| 5.3 - 22 | 2.75 | 2.1 - 7 | 2.75 | 1.1 - 1 | 2.81 | 2.2 - 9 | 2.83 |
| 6.2 - 26 | 2.75 | 4.1 - 15 | 2.75 | 6.2 - 26 | 2.81 | 6.1 - 24 | 2.83 |
| 4.1 - 14 | 2.76 | 1.1 - 3 | 2.76 | 1.2 - 5 | 2.85 | 2.1 - 7 | 2.88 |
| 6.1 - 24 | 2.77 | 5.3 - 22 | 2.76 | 5.1 - 18 | 2.85 | 3.2 - 12 | 2.88 |
| 6.2 - 25 | 2.84 | 4.1 - 16 | 2.80 | 2.1 - 8 | 2.86 | 4.1 - 15 | 2.88 |
| 3.1 - 11 | 2.86 | 3.1 - 11 | 2.81 | 3.1 - 11 | 2.86 | 5.3 - 22 | 2.88 |
| 2.2 - 9 | 2.88 | 3.2 - 12 | 2.81 | 6.1 - 23 | 2.86 | 6.1 - 23 | 2.88 |
| 2.1 - 7 | 2.90 | 5.1 - 19 | 2.84 | 6.2 - 25 | 2.90 | 3.1 - 11 | 2.94 |
| 6.1 - 23 | 2.90 | 6.2 - 25 | 2.84 | 2.2 - 10 | 3.00 | 4.1 - 14 | 2.94 |
| 2.2 - 10 | 2.93 | 5.1 - 18 | 2.85 | 2.1 - 7 | 3.05 | 4.2 - 17 | 3.00 |
| 3.2 - 12 | 2.93 | 5.3 - 21 | 2.85 | 5.1 - 19 | 3.05 | 5.1 - 19 | 3.00 |
| 5.1 - 18 | 2.93 | 2.2 - 10 | 2.95 | 2.2 - 9 | 3.10 | 4.1 - 16 | 3.06 |
| 5.1 - 19 | 2.96 | 6.1 - 23 | 2.95 | 3.2 - 12 | 3.10 | 5.1 - 18 | 3.12 |

The color codes accentuate the level of difficulty perceived among the districts and also show that for the aggregate of the districts and for each district certain Items emerge as more difficult to implement. Item 5.1, Work Systems and Item 5.2 appear as more difficult to implement across all of the rankings while Item

1.1, Organizational Leadership; Item 1.2, Public Responsibility and Citizenship; and Category 4 Information and Analysis (Item 4.1 and 4.2) emerges as the easiest to implement. Three considerations may offer a link to these results.

First, as an educational organization, the primary customer is the student. As such, the priorities for the organization will center on those Criteria that provide the greatest leverage in addressing the needs and requirements of the student. The needs of faculty and staff, while important to individual and collective efficacy and the organizational health of the district, often require providing time beyond the school day for training and development making implementation more difficult and costly. The most immediate attention is given to students whose performance and success are linked to high-stakes accountability measures.

Second, as a Criteria Item becomes institutionalized within the organization, the perception of the difficulty of implementation minimizes as the approach becomes the “way we do our work” rather than an initiative in the early stages of deployment. Finally, the ranking does not imply that any Item has less importance to the districts or the framework of the Baldrige Criteria because, as noted previously, each of these districts show perceptions of systematic approaches at varying levels of deployment reflective of the maturity of the organization in its use and implementation of the Criteria as an integrated management system. Table 4.61 illustrates the means for the level of impact of implementation on collective teacher efficacy.

| Table 4.61— Aggregate Ranked Impact of Implementation on Collective Teacher Efficacy Means | | | | | | | |
|---|------|------------|------|------------|------|------------|------|
| <i>Impact</i> 1. Strong Impact 2. Moderate Impact 3. Limited Impact 4. No Impact 5. Not Observed (NO) | | | | | | | |
| The following color codes represent the bands for each scale score: | | | | | | | |
| 1.00-1.75 | | 1.76-2.50 | | 2.51-3.25 | | 3.26-4.00 | |
| Aggregate of Districts | | District A | | District B | | District C | |
| 4.1 - 16 | 1.57 | 4.1 - 15 | 1.86 | 4.1 - 16 | 1.19 | 5.2 - 20 | 1.89 |
| 5.2 - 20 | 1.57 | 4.1 - 14 | 1.95 | 4.2 - 17 | 1.29 | 6.1 - 24 | 2.06 |
| 6.1 - 24 | 1.58 | 4.1 - 16 | 1.95 | 1.1 - 1 | 1.43 | 2.2 - 9 | 2.11 |
| 4.2 - 17 | 1.65 | 1.1 - 1 | 2.00 | 4.1 - 15 | 1.43 | 2.1 - 8 | 2.13 |
| 4.1 - 15 | 1.67 | 2.2 - 10 | 2.00 | 5.2 - 20 | 1.43 | 2.2 - 10 | 2.18 |
| 6.1 - 23 | 1.71 | 1.1 - 2 | 2.05 | 6.1 - 23 | 1.43 | 6.2 - 25 | 2.19 |
| 2.2 - 9 | 1.73 | 2.1 - 7 | 2.05 | 1.1 - 3 | 1.48 | 1.1 - 1 | 2.22 |
| 1.2 - 6 | 1.79 | 2.2 - 9 | 2.05 | 6.1 - 24 | 1.55 | 2.1 - 7 | 2.22 |
| 4.1 - 14 | 1.81 | 1.1 - 3 | 2.10 | 1.1 - 2 | 1.62 | 3.2 - 12 | 2.22 |
| 1.1 - 1 | 1.88 | 4.2 - 17 | 2.10 | 1.2 - 4 | 1.71 | 3.1 - 11 | 2.24 |
| 1.1 - 2 | 1.90 | 6.1 - 24 | 2.10 | 1.2 - 6 | 1.81 | 4.1 - 15 | 2.24 |
| 1.1 - 3 | 1.90 | 1.2 - 6 | 2.14 | 2.1 - 8 | 1.81 | 4.1 - 14 | 2.28 |
| 2.1 - 8 | 1.95 | 5.2 - 20 | 2.14 | 2.2 - 10 | 1.86 | 5.1 - 18 | 2.29 |
| 5.1 - 18 | 1.95 | 1.2 - 5 | 2.15 | 3.2 - 12 | 1.90 | 6.2 - 26 | 2.31 |
| 1.2 - 4 | 1.98 | 1.2 - 4 | 2.24 | 2.2 - 9 | 1.95 | 1.1 - 2 | 2.33 |
| 2.1 - 7 | 1.98 | 5.1 - 18 | 2.24 | 3.2 - 13 | 1.95 | 4.1 - 16 | 2.33 |
| 2.2 - 10 | 2.00 | 6.2 - 26 | 2.24 | 4.1 - 14 | 1.95 | 5.1 - 19 | 2.35 |
| 6.2 - 25 | 2.04 | 5.1 - 19 | 2.29 | 2.1 - 7 | 2.05 | 1.2 - 4 | 2.39 |
| 3.2 - 12 | 2.05 | 6.2 - 25 | 2.32 | 6.2 - 25 | 2.05 | 1.2 - 6 | 2.41 |
| 6.2 - 26 | 2.05 | 2.1 - 8 | 2.33 | 3.1 - 11 | 2.10 | 4.2 - 17 | 2.44 |
| 5.1 - 19 | 2.09 | 3.2 - 12 | 2.33 | 5.1 - 19 | 2.10 | 5.3 - 22 | 2.44 |
| 3.1 - 11 | 2.12 | 3.2 - 13 | 2.38 | 6.2 - 26 | 2.14 | 1.1 - 3 | 2.50 |
| 5.3 - 21 | 2.17 | 6.1 - 23 | 2.43 | 5.3 - 21 | 2.19 | 5.3 - 21 | 2.50 |
| 3.2 - 13 | 2.18 | 3.1 - 11 | 2.48 | 5.3 - 22 | 2.25 | 6.1 - 23 | 2.53 |
| 5.3 - 22 | 2.21 | 5.3 - 21 | 2.81 | 5.1 - 18 | 2.30 | 3.2 - 13 | 2.59 |
| 1.2 - 5 | 2.44 | 5.3 - 22 | 2.90 | 1.2 - 5 | 2.58 | 1.2 - 5 | 2.89 |

Table 4.61 shows that all of the Items have some level of impact on collective teacher efficacy with the majority of the Items perceived to have a strong to moderate impact. Although each district has approached the Criteria and implementation in different ways and in different contexts, striking similarities

occur in the perceptions of impact on collective teacher efficacy, especially in the Category of Information and Analysis, Items 4.1 and 4.2. For teachers to be empowered to address the multiple needs and requirements of diverse populations, accurate and reliable student information and knowledge sharing among professional is essential.

Research question 4 will explore the relationship between the perceptions of implementation of the Baldrige Education Criteria for Performance Excellence and the impact of the implementation of the Criteria on collective teacher efficacy.

Results and Analysis of Research Question 4

Research question 4 asked, “What is the relationship between the perceptions of implementation of the Baldrige Education Criteria for Performance Excellence and the impact of the implementation of the Criteria on collective teacher efficacy?” Research question 4 analyses utilized the aggregate data of the three study districts to extract scatter plots and the computation of Pearson correlation coefficients to determine the degree of relationship. Statistical significance was determined using a table of critical values for Pearson product-moment correlation coefficients (Spatz, 2001, p. 361). Spatz (2001) notes that Jacob

Cohen's designations for small, medium, or large correlation coefficients provides a guideline for discussion. Cohen's designations are as follows:

- Small $r = .10$
- Medium $r = .30$
- Large $r = .50$

The analysis of research question 4 focuses on the questions that link to the fourteen items from the six categories of the Baldrige Education Criteria for Performance Excellence. Figures 4.50 through 4.76 report the correlation data for research question 4.

Item 1.1 Organizational Leadership

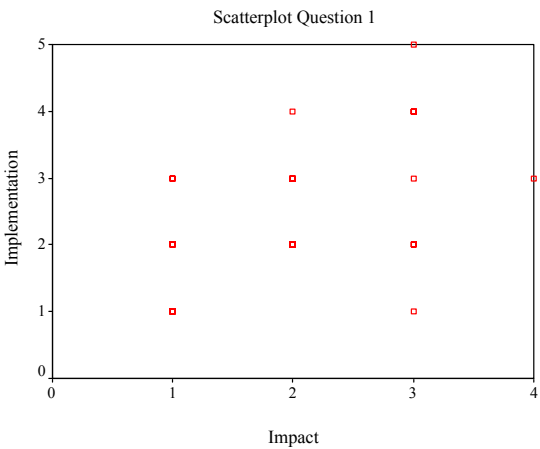
Questions 1 through 3 provide data reflecting participant perceptions related to how senior leaders provide organizational leadership by: establishing and deploying core values and performance expectations; creating an environment that promotes ethical behavior, equity for students, empowerment, and innovation; reviewing and assessing performance data and communicating findings and acting on those findings. Figures 4.50 to 4.52 display the correlations between implementation and the impact on collective teacher efficacy for questions 1 through 3.

Figure 4.50. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 1

1. To what extent have district leaders established core values and performance expectations?

| Question 1 Correlations | | | |
|-------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .519 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 60 | 60 |
| Impact | Pearson Correlation | .519 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 60 | 60 |

**. Correlation is significant at the 0.01 level (2-tailed).



A large correlation at α level 0.01 between implementation and impact is revealed for question 1 ($r = .52$; $p = .000$), the extent to which district leaders have established core values and performance expectations. The correlation for question 1 shows that the greater the implementation of core values and performance expectations, the greater the impact on collective teacher efficacy.

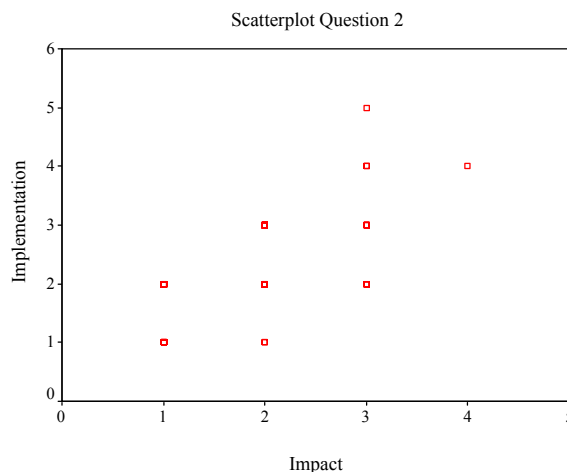
Figure 4.51. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 2

2. To what extent have district leaders communicated the core values and performance expectations?

Question 2 Correlations

| | | Implementation | Impact |
|----------------|---------------------|----------------|---------|
| Implementation | Pearson Correlation | 1 | .626 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 60 | 60 |
| Impact | Pearson Correlation | .626 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 60 | 60 |

**. Correlation is significant at the 0.01 level (2-tailed).



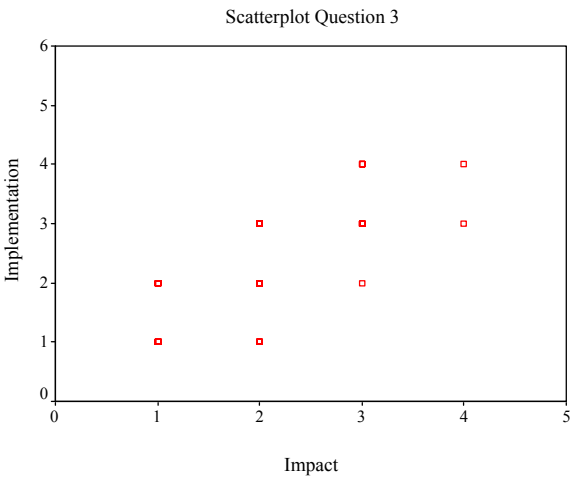
A large correlation at α level 0.01 between implementation and impact is revealed for question 2 ($r = .62$; $p = .000$), which asks about the extent to which district leaders have communicated core values and performance expectations. The correlation for question 2 shows that the greater the implementation of communication of core values and performance expectations by district leaders, the greater the impact on collective teacher efficacy.

Figure 4.52. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 3

3. To what extent have district leaders reviewed district performance to assess progress of goals?

| Question 3 Correlations | | | |
|-------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .751 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 60 | 60 |
| Impact | Pearson Correlation | .751 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 60 | 60 |

** . Correlation is significant at the 0.01 level (2-tailed).



A large correlation at α level 0.01 between implementation and impact is revealed for question 3 ($r = .75$; $p = .000$), which asks to what extent district leaders have reviewed district performance to assess progress of goals. The correlation for question 3 shows that the greater the implementation of district leaders' review of district performance to assess progress of goals, the greater the impact on collective teacher efficacy.

Item 1.2 Public Responsibility and Citizenship

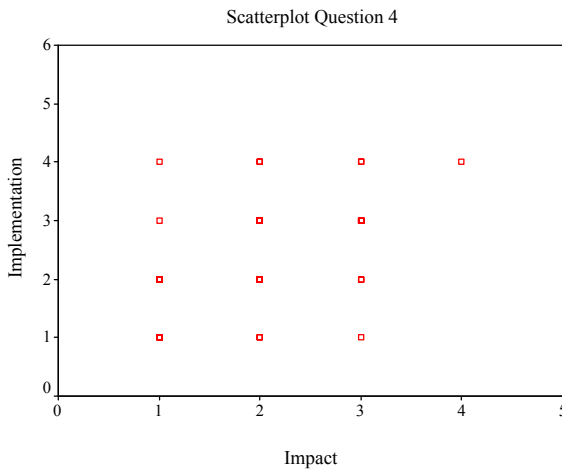
Questions 4 through 6 provide data reflecting participant perceptions related to how the organization fulfills its public responsibility and practices good citizenship, and how senior leaders, as well as faculty and staff, promote good citizenship by actively identifying and supporting key communities supporting the organization's mission and core values. Figures 4.53 through 4.55 display the correlations between implementation and impact on collective efficacy for questions 4 through 6.

Figure 4.53. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 4

4. To what extent have district leaders examined the changing needs and capabilities of the district to ensure continuous improvement?

| Question 4 Correlations | | | |
|-------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .444 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 60 | 60 |
| Impact | Pearson Correlation | .444 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 60 | 60 |

** . Correlation is significant at the 0.01 level (2-tailed).



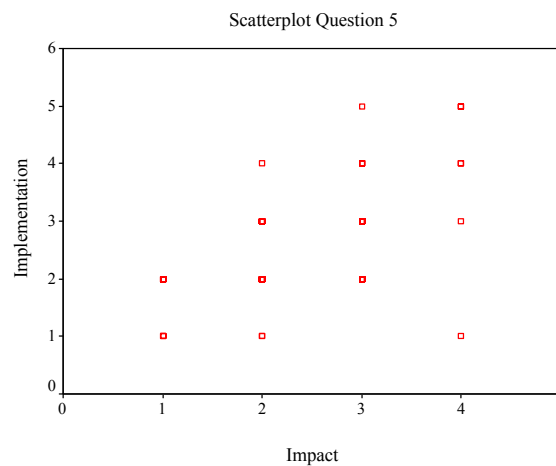
Analysis reveals a significant relationship between implementation and impact at α level 0.01 for question 4 ($r = .44$; $p = .000$), the extent district leaders examined changing needs and capabilities of the district. The correlation for question 4 shows that the greater the implementation of district leaders' examination of the changing needs and capabilities of the district, the greater the impact on collective teacher efficacy.

Figure 4.54. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 5

5. To what extent have district leaders facilitated the use of district resources (e.g. facilities, extended outreach programs, community education, etc.) for the community?

| Question 5 Correlations | | | |
|-------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .543 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 59 | 57 |
| Impact | Pearson Correlation | .543 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 57 | 57 |

** . Correlation is significant at the 0.01 level (2-tailed).



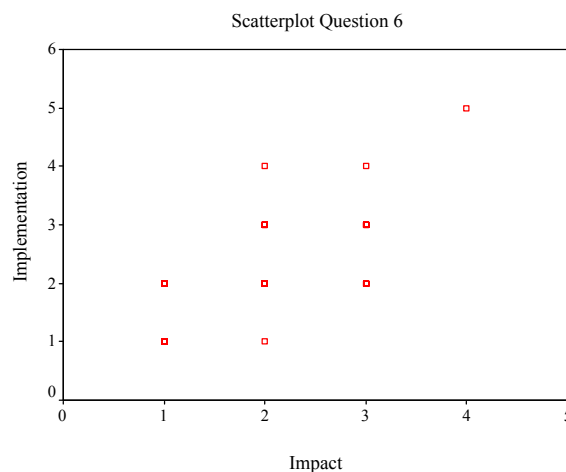
The correlation analysis reveals a large correlation at α level 0.01 between implementation and impact for question 5 ($r = .54$; $p = .000$), related to the extent district leaders have facilitated the use of district resources for the community. The correlation for question 5 shows that the greater the implementation of district leaders' facilitation of the use of district resources for the community, the greater the impact on collective teacher efficacy.

Figure 4.55. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 6

6. To what extent have district leaders ensured ethical practices in all interactions with students and stakeholders?

| Question 6 Correlations | | | |
|-------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .652 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 60 | 58 |
| Impact | Pearson Correlation | .652 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 58 | 58 |

** . Correlation is significant at the 0.01 level (2-tailed).



The correlation analysis reveals a large correlation at α level 0.01 between implementation and impact question 6 ($r = .65$; $p = .000$), the extent to which district leaders ensure ethical practices in all interactions with students and stakeholders. The correlation for question 6 shows that the greater the implementation of district leaders' assurance of ethical practices in all interactions with students and stakeholders, the greater the impact on collective teacher efficacy.

Category 1, Leadership, the data for all of the questions for Item 1.1 Organizational Leadership and Item 1.2 Public Responsibility and Citizenship, revealed a positive relationship between the implementation of management practices related to each question and the impact on collective teacher efficacy. The strongest correlations occurred in questions 2 ($r = .626$), 3 ($r = .751$), and 6 ($r = .652$) suggesting that the personal and active involvement of senior leaders plays a critical role in how teachers collectively view the ability to successfully educate children. Senior leaders in high performing organizations communicate through words and action core values and expectations, assess progress of the organization systematically based on reliable data, and build trust through ethical practices.

Item 2.1 Strategy Development

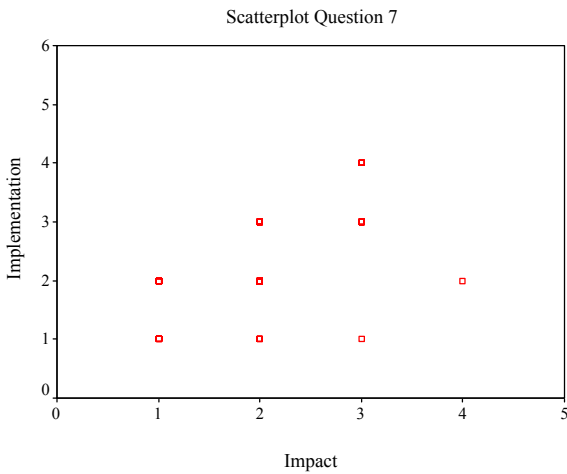
Questions 7 and 8 provide data reflecting participant perceptions related to how the organization develops its strategic objectives considering key factors that may influence future success and balancing the needs of students and stakeholders. Figures 4.56 and 4.57 display the correlations between implementation and the impact in collective teacher efficacy.

Figure 4.56. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 7

7. To what extent have district leaders facilitated a planning process that involves all stakeholders?

| Question 7 Correlations | | | |
|-------------------------|---------------------|----------------|--------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .515** |
| | Sig. (2-tailed) | . | .000 |
| | N | 59 | 58 |
| Impact | Pearson Correlation | .515** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 58 | 58 |

** . Correlation is significant at the 0.01 level (2-tailed).



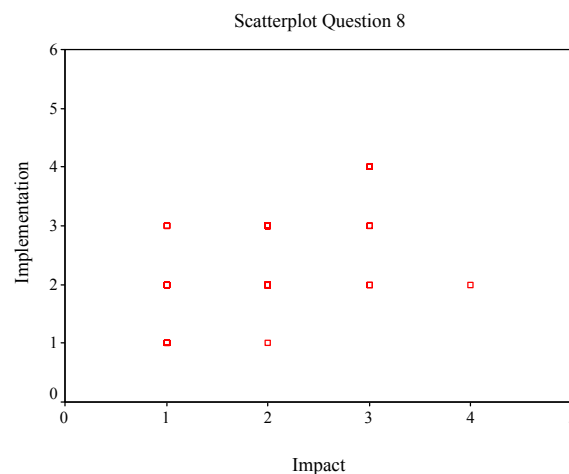
Analysis reveals a significant relationship between implementation and impact at α level 0.01 for question 7 ($r = .52$; $p = .000$), the extent to which district leaders facilitate a planning process involving all stakeholders. The correlation for question 7 shows that the greater the implementation of district leaders' facilitation of a planning process that involves all stakeholders, the greater the impact on collective teacher efficacy.

Figure 4.57 Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 8

8. To what extent have district leaders considered student and stakeholder needs, expectations, and opportunities in the planning process?

| Question 8 Correlations | | | |
|-------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .475 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 58 | 58 |
| Impact | Pearson Correlation | .475 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 58 | 58 |

** . Correlation is significant at the 0.01 level (2-tailed).



Question 8, the extent to which district leaders consider student and stakeholder needs, expectations, and opportunities in the planning process, reveals significant correlations at α level 0.01 ($r = .48$; $p = .000$). The correlation for question 8 shows that the greater the implementation of district leaders' consideration of student and stakeholder needs, expectations, and opportunities in the planning process, the greater the impact on collective teacher efficacy.

Item 2.2 Strategy Deployment

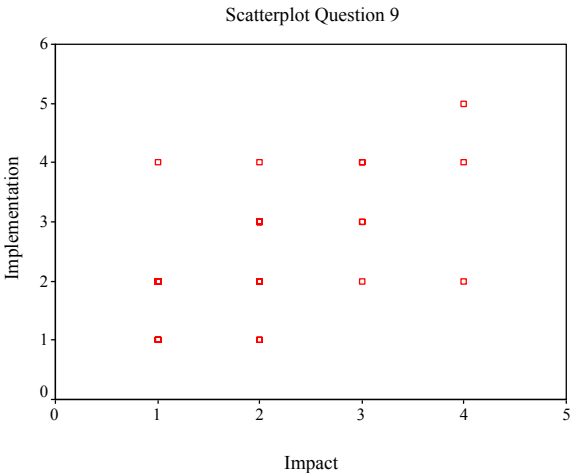
Questions 9 and 10 provide data reflecting participant perceptions related to how the organization converts strategic objectives into action plans, especially the extent of deployment throughout the organization as evidenced by alignment of processes to goals and objectives. Figures 4.58 and 4.59 display the correlations between implementation and the impact on collective teacher efficacy for questions 9 and 10.

Figure 4.58. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 9

9. To what extent have district leaders developed and implemented action plans to achieve objectives?

| Question 9 Correlations | | | |
|-------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .571 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 60 | 60 |
| Impact | Pearson Correlation | .571 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 60 | 60 |

** . Correlation is significant at the 0.01 level (2-tailed).



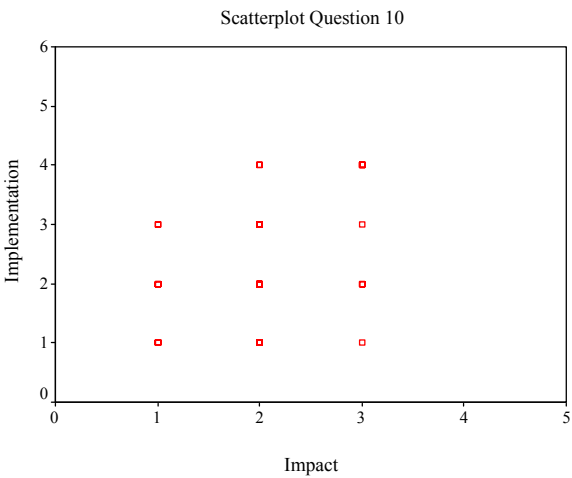
Significant correlations between implementation and impact on collective efficacy at α level 0.01 exist for question 9 ($r = .57$; $p = .000$), the extent to which district leaders develop and implement action plans to achieve objectives. The correlation for question 9 shows that the greater the implementation of action plans to achieve objectives, the greater the impact on collective teacher efficacy.

Figure 4.59. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 10

10. To what extent have district leaders identified performance measures for tracking the progress of action plans?

| Question 10 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .383 ** |
| | Sig. (2-tailed) | . | .003 |
| | N | 60 | 59 |
| Impact | Pearson Correlation | .383 ** | 1 |
| | Sig. (2-tailed) | .003 | . |
| | N | 59 | 59 |

** . Correlation is significant at the 0.01 level (2-tailed).



Question 10 ($r = .38$; $p = .000$), the extent to which district leaders have identified performance measures for tracking the progress of action plans, reveals a significant correlation. The correlation for question 10 shows that the greater the implementation of district leaders' identification of performance measures for tracking the progress of action plans, the greater the impact on collective teacher efficacy.

In Category 2, Strategic Planning, the data for the questions related to Item 2.1 Strategy Development and Item 2.2 Strategy Deployment, showed significant correlations between the implementation of management practices related to each question and the impact on collective teacher efficacy. Questions 7 through 10 show a significant correlation between implementation and impact on collective efficacy with the strongest correlation at question 9, suggesting that educators perceive that collective efficacy is impacted by the development and implementation of short- and long-term planning with specific action plans to reach the organization's strategic objectives.

Item 3.1 Knowledge of Student, Stakeholder, and Market Needs and Expectations.

Question 11 provides data reflecting participant perceptions related to the organization's key processes for determining knowledge about the requirements, expectations, and preferences of both current and future student, stakeholder, and

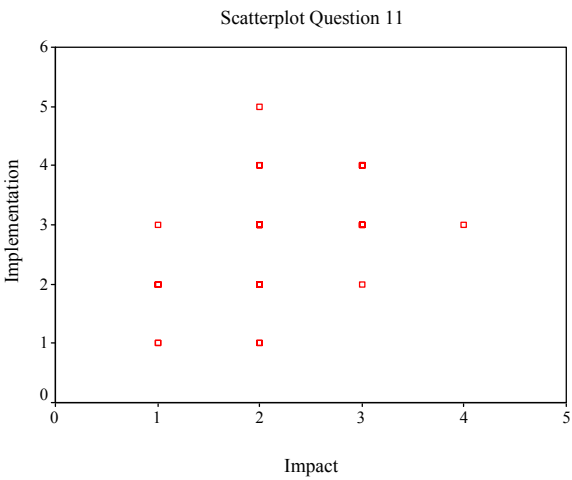
markets. The information gained from these processes serves to create a climate open to learning and development of all students. Figure 4.60 displays the correlations between implementation and the impact on collective teacher efficacy for question 11.

Figure 4.60. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 11

11. To what extent has the district developed strategies to determine key student needs, expectations, and stakeholder satisfaction?

| Question 11 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .504 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 58 | 58 |
| Impact | Pearson Correlation | .504 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 58 | 59 |

**. Correlation is significant at the 0.01 level (2-tailed).



Question 11, the extent to which the district has developed strategies to determine key student needs, expectations, and stakeholder satisfaction, shows significant correlations at α level 0.01 between implementation and impact on collective efficacy ($r = .50$; $p = .000$). The correlation for question 11 shows that the greater the implementation of strategies to determine key student needs, expectations, and stakeholder satisfaction, the greater the impact on collective teacher efficacy.

Item 3.2 Student and Stakeholder Relationships and Satisfaction

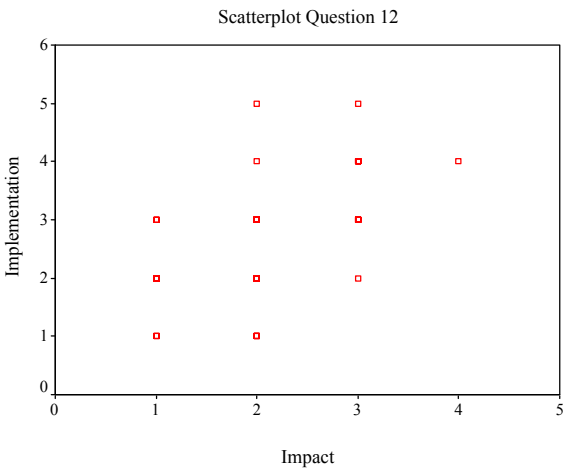
Questions 12 and 13 provide data reflecting participant perceptions related to how the organization builds relationships to retain students and enhance student learning. This item also examines the organization's ability to deliver services that satisfy students and stakeholders as well developing new opportunities to meet those needs. Figures 4.61 and 4.62 display the correlations between implementation and the impact on collective teacher efficacy for questions 12 and 13.

Figure 4.61. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 12

12. To what extent has the district built relationships to enhance student performance and retain students?

| Question 12 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .522 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 59 | 59 |
| Impact | Pearson Correlation | .522 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 59 | 59 |

** . Correlation is significant at the 0.01 level (2-tailed).



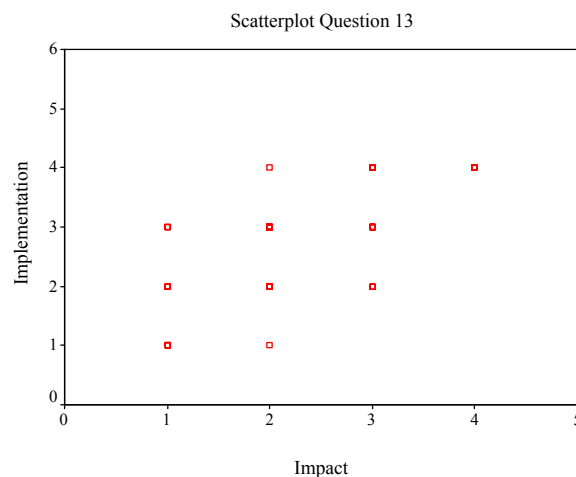
Question 12, the extent to which the district has built relationships to enhance student performance and retain students, shows significant correlations at α level 0.01 between implementation and impact on collective efficacy ($r = .52$; $p = .000$). The correlation for question 12 shows that the greater the implementation of relationships that enhance student performance and retention, the greater the impact on collective teacher efficacy.

Figure 4.62. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 13

13. To what extent has the district collected information from students and stakeholders to improve the district and its services?

| Question 13 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .641 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 60 | 57 |
| Impact | Pearson Correlation | .641 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 57 | 57 |

** . Correlation is significant at the 0.01 level (2-tailed).



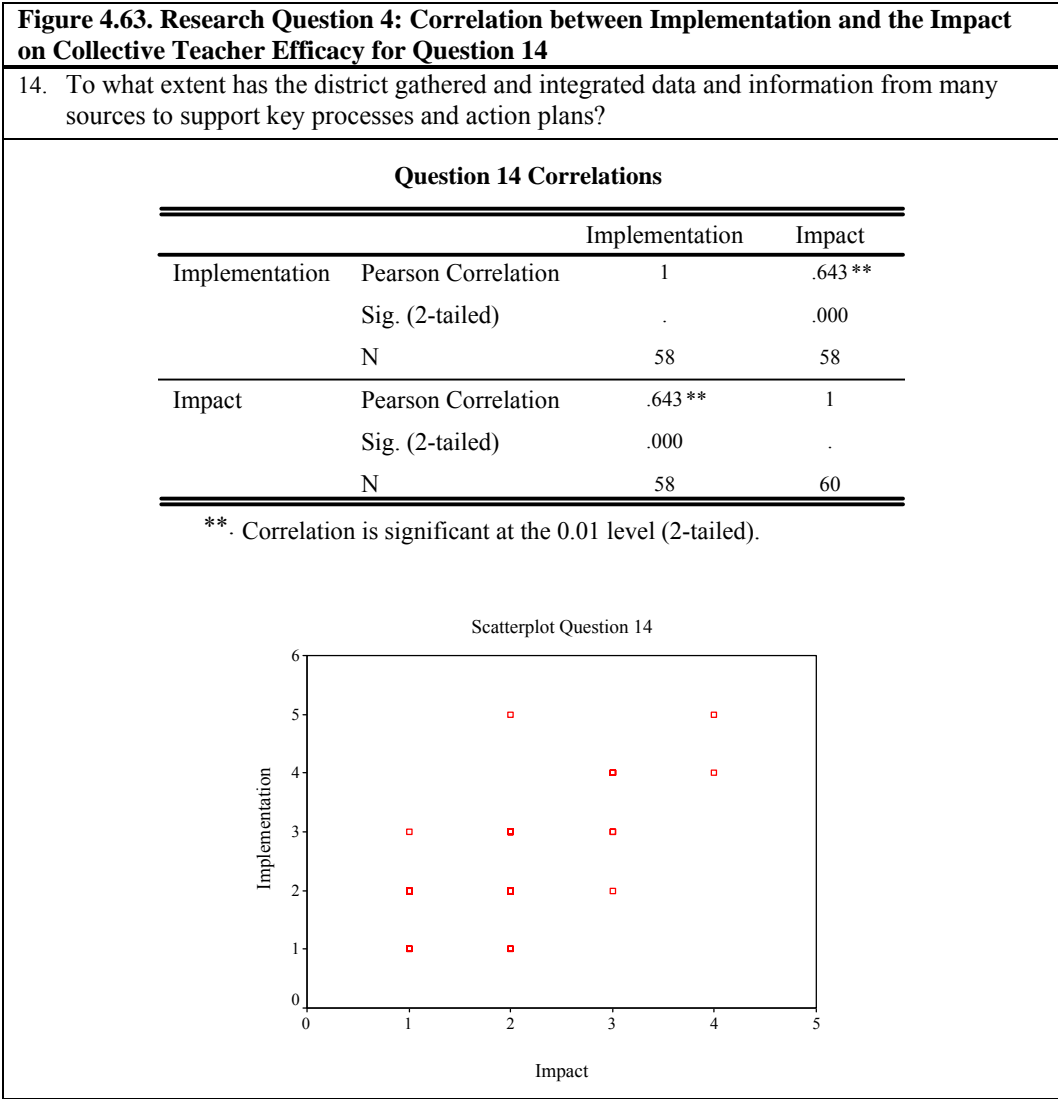
Question 13, the extent to which the district has collected information from students and stakeholders to improve the district and its services, reveals significant correlations at α level 0.01 between implementation and impact on collective efficacy ($r = .64$; $p = .000$). The correlation for question 13 shows that the greater the implementation of district's collection of information from students and stakeholders to improve the district and its services, the greater the impact on collective teacher efficacy.

In Category 3, Student, Stakeholder, and Market Focus, each of the questions for Item 3.1 Knowledge of Student, Stakeholder, and Market Needs and Expectations and Item 3.2 Student and Stakeholder relationships and Satisfaction, the data showed significant correlations between the implementation of management practices related to each question and the impact on collective teacher efficacy. Question 13 exhibited the largest correlation ($r = .64$). This question, which relates to Item 3.2, assesses how the organization actively pursues gathering actionable feedback from students and key stakeholders (parents, community, business) and uses the information for improvement. The correlation results suggest that the educators in this study perceive this practice as having an impact on collective teacher efficacy.

Item 4.1 Measurement and Analysis of Organizational Performance

Questions 14 through 16 provide data reflecting participant perceptions related to the mechanical processes for data collection as well as the analytical processes used to interpret the data that is then deployed at all levels of the organization to improve operational and student performance. Figures 4.63 to 4.65

display the correlations between implementation and the impact on collective teacher efficacy for questions 14 through 16.



Questions 14 shows significant correlations at α level 0.01 between implementation and impact on collective efficacy ($r = .64$; $p = .000$) and addresses the extent to which the district has gathered and integrated data and information from many sources to support key processes and action plans. The correlation for question

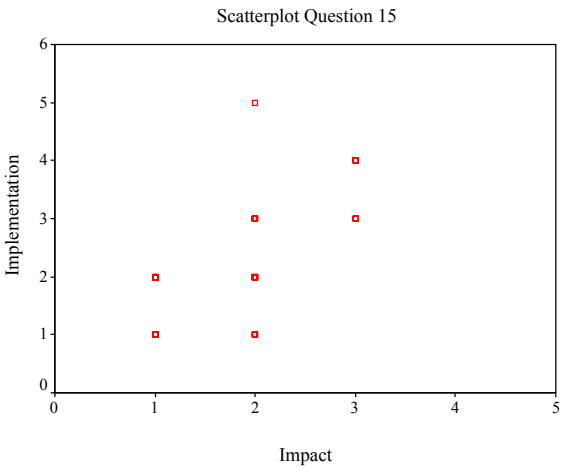
14 shows that the greater the implementation of district gathering and integrating of data and information from many sources to support key processes and action plans, the greater the impact on collective teacher efficacy.

Figure 4.64. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 15

15. To what extent has the district analyzed data and reviewed district performance as it relates to goals and action plans?

| Question 15 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .706 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 59 | 58 |
| Impact | Pearson Correlation | .706 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 58 | 58 |

**. Correlation is significant at the 0.01 level (2-tailed).



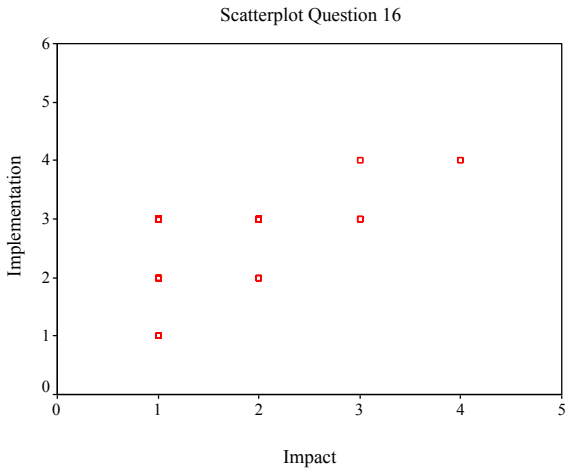
Question 15 ($r = .71$; $p = .000$) relates to the extent to which the district has analyzed data and reviewed district performance as it relates to goals and action plans and reveals a significant correlation. The correlation for question 15 shows that the greater the implementation of district analysis of data and review of district performance as it relates to goals and action plans, the greater the impact on collective teacher efficacy.

Figure 4.65. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 16

16. To what extent has the district disaggregated and analyzed data to modify and improve instruction to enhance student achievement?

| Question 16 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .708 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 59 | 58 |
| Impact | Pearson Correlation | .708 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 58 | 58 |

**. Correlation is significant at the 0.01 level (2-tailed).



Question 16 ($r = .71$; $p = .000$) assesses the extent to which the district has disaggregated data and analyzed data to modify and improve instruction to enhance student achievement. The correlation for question 16 shows that the greater the implementation of district disaggregation and analysis of data to modify and improve instruction to enhance student achievement, the greater the impact on collective teacher efficacy.

Item 4.2 Information Management

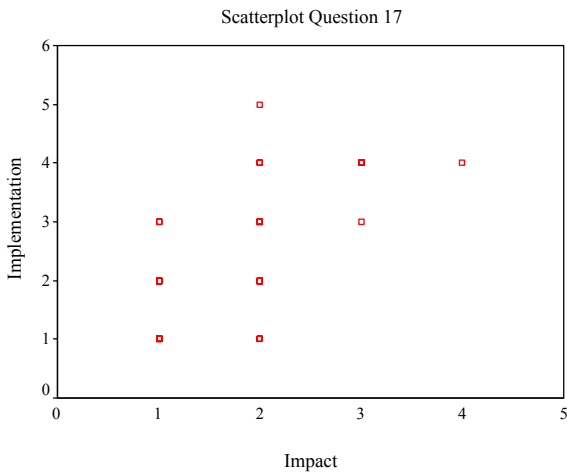
Question 17 provides data reflecting participant perceptions related to how organizations ensure the quality and availability of data and information for faculty, staff, students, stakeholders, and suppliers or partners. This item addresses not only the availability of data, its integrity, reliability, accuracy, and confidentiality but also whether the hardware and software is user friendly, reliable, and updated to remain current with educational service needs. Figure 4.66 displays the correlations between implementation and the impact on collective teacher efficacy for question 17.

Figure 4.66. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 17

17. To what extent has the district employed an effective system for making needed data and information available?

| Question 17 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .692 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 58 | 57 |
| Impact | Pearson Correlation | .692 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 57 | 57 |

**. Correlation is significant at the 0.01 level (2-tailed).



Question 17, the extent to which the district has employed an effective system for making data and information available, reveals significant correlations at α level 0.01 between implementation and impact on collective efficacy ($r = .69$; $p = .000$). The correlation for question 17 shows that as the district implements approaches to employ an effective system for making needed data and information available, the greater the impact on collective teacher efficacy.

Category 4, Information and Analysis, Item 4.1 Measurement and Analysis of Organizational Performance and Item 4.2 Student and Stakeholder Relationships and Satisfaction, showed significant correlations between the implementation of management practices related to each question and the impact on collective teacher efficacy. All of the questions revealed large correlations from $r = .64$ to $r = .71$ and suggest that collective teacher efficacy, the belief that teachers as a group can make a difference in student performance, is enhanced when the organization provides tools and systems to collect, analyze, and communicate data and performance measures.

Item 5.1 Work Systems

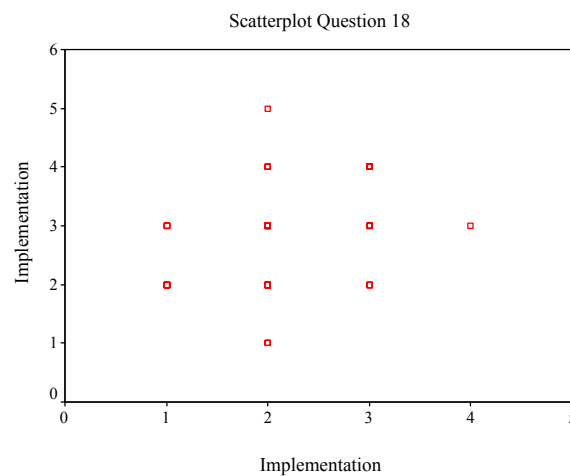
Questions 18 and 19 provide data reflecting participant perceptions related to how the organization designs a system that motivates and enables faculty and staff to achieve high performance. This item considers jobs, compensation, career progression, and related workforce practices. Figures 4.67 and 4.68 display the correlations between implementation and the impact on collective teacher efficacy for questions 18 and 19.

Figure 4.67. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 18

18. To what extent has the district organized and managed work and jobs to promote cooperation, initiative, innovation, and organizational culture?

| Question 18 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .449 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 59 | 58 |
| Impact | Pearson Correlation | .449 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 58 | 58 |

** . Correlation is significant at the 0.01 level (2-tailed).



Question 18, the extent to which the district has organized and managed work and jobs to promote cooperation, initiative, innovation, and organizational culture, reveals significant correlations at α level 0.01 between implementation and impact on collective efficacy ($r = .45$; $p = .000$). The correlation for question 18 shows that the greater the implementation of district organization and management of work and jobs

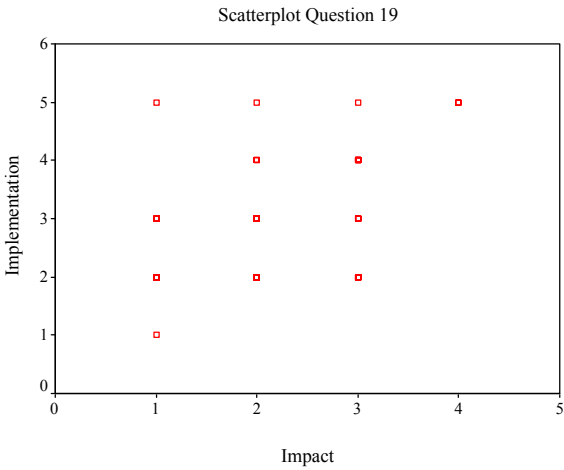
that promote cooperation, initiative, innovation, and organizational culture, the greater the impact on collective teacher efficacy.

Figure 4.68. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 19

19. To what extent has the district motivated faculty and staff to develop and utilize their full potential?

| Question 19 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .430 ** |
| | Sig. (2-tailed) | . | .001 |
| | N | 59 | 58 |
| Impact | Pearson Correlation | .430 ** | 1 |
| | Sig. (2-tailed) | .001 | . |
| | N | 58 | 58 |

**. Correlation is significant at the 0.01 level (2-tailed).



Question 19, the extent to which the district has motivated faculty and staff to develop and utilize their full potential, shows significant correlations at α level 0.01 between implementation and impact on collective efficacy ($r = .43$; $p = .000$). The correlation for question 19 shows that the greater the implementation of approaches that motivate faculty and staff to develop and utilize their full potential, the greater the impact on collective teacher efficacy.

Item 5.2 Faculty and Staff Education, Training, and Development

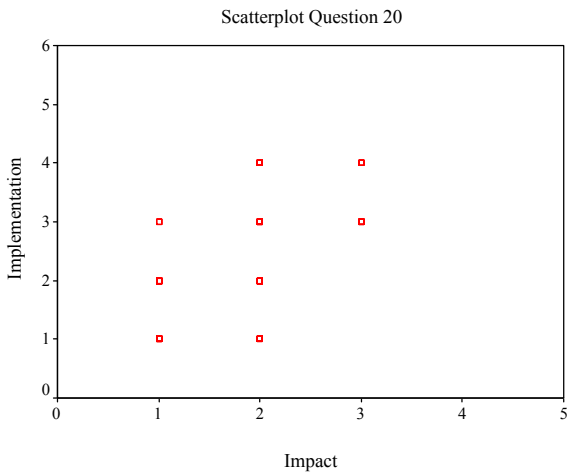
Question 20 provides data reflecting participant perceptions related to how the organization's faculty and staff education and training support the achievement of strategies and objectives. This item also includes the assessment of processes for building faculty and staff knowledge, skills, and capabilities that contribute to high performance. Figure 4.69 displays the correlations between implementation and the impact on collective teacher efficacy for question 20.

Figure 4.69. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 20

20. To what extent has the district addressed and delivered faculty and staff education, training, and development that is aligned to district goals, action plans, and student achievement?

| Question 20 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .529 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 60 | 60 |
| Impact | Pearson Correlation | .529 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 60 | 60 |

** . Correlation is significant at the 0.01 level (2-tailed).



Question 20 reveals significant correlations at α level 0.01 between implementation and impact on collective efficacy ($r = .53$; $p = .000$). The correlation for question 20 shows that the greater the implementation of district approaches that address and deliver faculty and staff education, training, and development that is aligned to district goals, action plans, and student achievement, the greater the impact on collective teacher efficacy.

Item 5.3 Faculty and Staff Well-being and Satisfaction

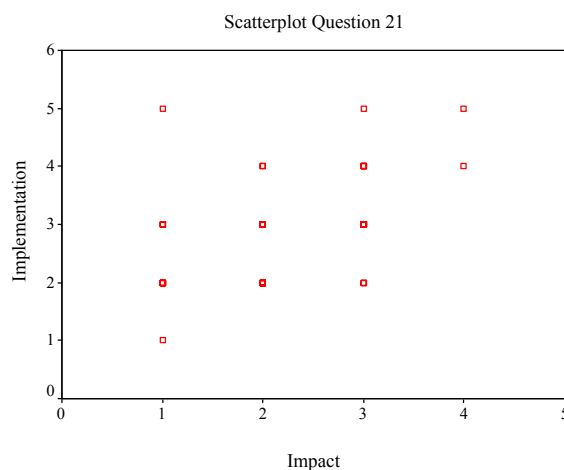
Questions 21 and 22 provide data reflecting participant perceptions related to how the organization maintains a work environment and faculty and staff climate that contributes to the well-being, satisfaction, and motivation of all employees. This item also examines workplace health, safety, and ergonomics as well as evaluation methods and measures for determining faculty and staff satisfaction and motivation. Figures 4.70 and 4.71 display the correlations between implementation and the impact on collective teacher efficacy for questions 21 and 22.

Figure 4.70. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 21

21. To what extent has the district ensured workplace health, safety, and ergonomics?

| Question 21 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .439 ** |
| | Sig. (2-tailed) | . | .001 |
| | N | 60 | 58 |
| Impact | Pearson Correlation | .439 ** | 1 |
| | Sig. (2-tailed) | .001 | . |
| | N | 58 | 58 |

**. Correlation is significant at the 0.01 level (2-tailed).



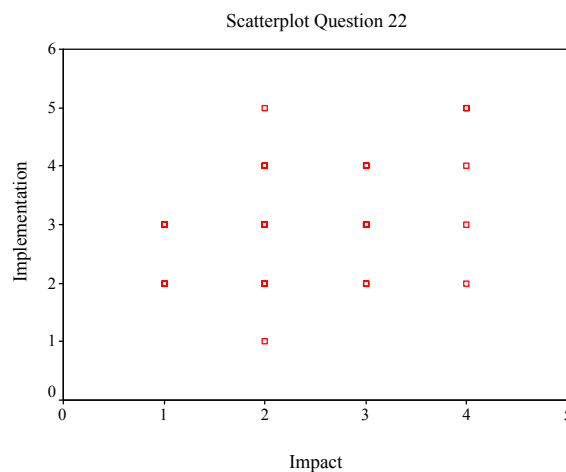
Question 21, the extent to which the district has ensured workplace health, safety, and ergonomics, shows significant correlations at α level 0.01 between implementation and impact on collective efficacy ($r = .44$; $p = .000$). The correlation for question 21 reveals that the greater the implementation of district processes that ensure workplace, health, safety, and ergonomics, the greater the impact on collective teacher efficacy.

Figure 4.71. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 22

22. To what extent has the district employed a system to assess the key factors that affect faculty and staff well-being, satisfaction, and motivation?

| Question 22 Correlations | | | |
|--------------------------|---------------------|----------------|--------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .335 * |
| | Sig. (2-tailed) | . | .011 |
| | N | 59 | 57 |
| Impact | Pearson Correlation | .335 * | 1 |
| | Sig. (2-tailed) | .011 | . |
| | N | 57 | 57 |

*. Correlation is significant at the 0.05 level (2-tailed).



The analysis of question 22, the extent to which the district has employed a system to assess the key factors that affect faculty and staff well-being, satisfaction, and motivation, reveals significant correlations at α level 0.05 between implementation and impact on collective efficacy ($r = .34$; $p = .000$). The correlation for question 22 shows that the greater the implementation of district systems that

assess the key factors affecting faculty and staff well-being, satisfaction, and motivation, the greater the impact on collective teacher efficacy.

In Category 5, Faculty and Staff Focus, the data from the questions for Item 5.1 Work Systems, Item 5.2 Faculty and Staff education, Training, and Development, and Item 5.3 Faculty and Staff Well-being and Satisfaction, showed significant correlations between the implementation of management practices related to each question and the impact on collective teacher efficacy. Question 20, which addresses faculty training and development, exhibited the largest correlation ($r = .53$) while question 22 related to how the organization employs a system to assess key factors affecting satisfaction, revealed the smallest correlation at α level 0.05 ($r = .34$).

Item 6.1 Education Design and Delivery Processes

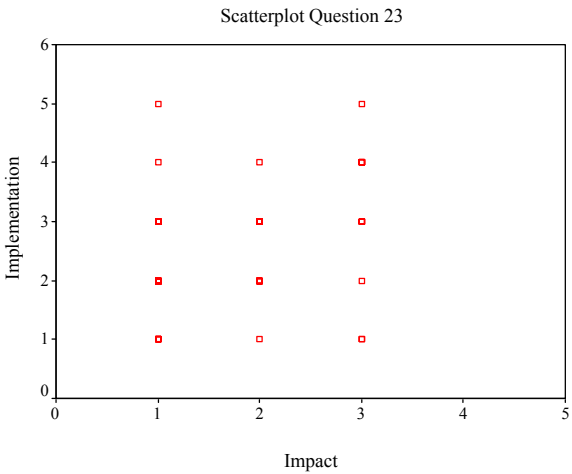
Questions 23 and 24 provide data reflecting participant perceptions related to how the organization manages the key processes for the design and delivery of educational programs. Figures 4.72 and 4.73 display the correlations between implementation and the impact on collective teacher efficacy for questions 23 and 24.

Figure 4.72. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 23

23. To what extent has the district considered student differences when developing educational programs that enngage students in active learning?

| Question 23 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .359 ** |
| | Sig. (2-tailed) | . | .005 |
| | N | 60 | 59 |
| Impact | Pearson Correlation | .359 ** | 1 |
| | Sig. (2-tailed) | .005 | . |
| | N | 59 | 59 |

** . Correlation is significant at the 0.01 level (2-tailed).



Question 23, the extent to which the district has considered student differences when developing educational programs that engage students in active learning, reveals significant correlations at α level 0.01 between implementation and impact on collective efficacy ($r = .36$; $p = .000$). The correlation for question 23 shows that the greater the implementation of district consideration of student differences when

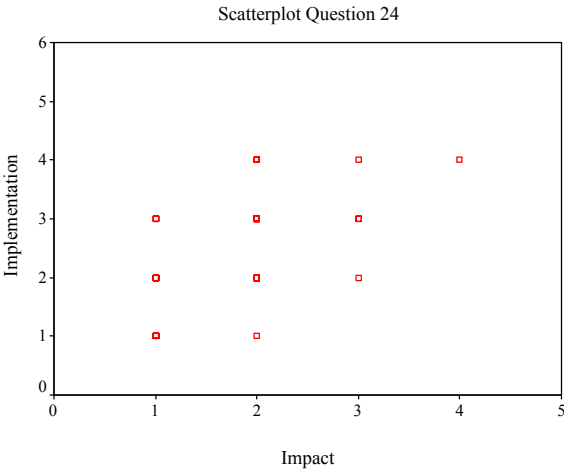
developing educational programs that engage student is active learning, the greater the impact on collective teacher efficacy.

Figure 4.73. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 24

24. To what extent has the district employed a process for developing educational programs aligned to district and state goals?

| Question 24 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .584 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 60 | 59 |
| Impact | Pearson Correlation | .584 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 59 | 59 |

**. Correlation is significant at the 0.01 level (2-tailed).



Question 24, the extent to which the district has employed a process for developing educational programs aligned to district and state goals, reveals a significant correlation at α level 0.01 between implementation and impact on collective efficacy ($r = .58; p = .000$). The correlation for question 24 shows that the greater the implementation of district processes for developing educational programs aligned to district and state goals, the greater the impact on collective teacher efficacy.

Item 6.2 Student Services

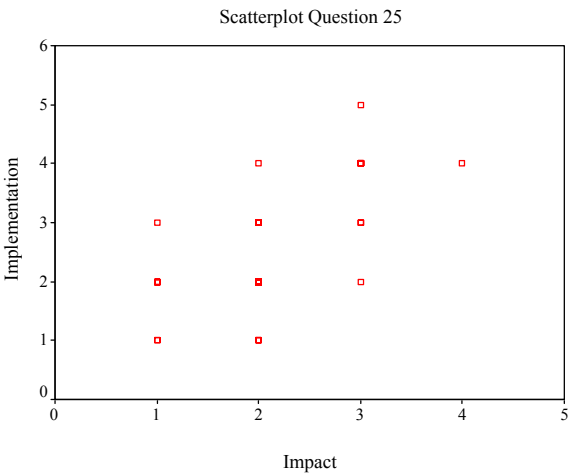
Question 25 provides data reflecting participant perceptions related to how the organization manages its key student services. Figure 4.74 displays the correlations between implementation and the impact on collective teacher efficacy for question 25.

Figure 4.74. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 25

25. To what extent has the district employed a process to measure the effectiveness of the implementation of educational programs?

| Question 25 Correlations | | | |
|--------------------------|---------------------|----------------|---------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .621 ** |
| | Sig. (2-tailed) | . | .000 |
| | N | 57 | 55 |
| Impact | Pearson Correlation | .621 ** | 1 |
| | Sig. (2-tailed) | .000 | . |
| | N | 55 | 56 |

** . Correlation is significant at the 0.01 level (2-tailed).



Question 25, the extent to which the district has employed a process to measure the effectiveness of the implementation of educational programs, reveals significant correlations at α level 0.01 between implementation and impact on collective efficacy ($r = .62$; $p = .000$). The correlation for question 25 shows that the greater the implementation of district process to measure the effectiveness of the implementation of educational programs, the greater the impact on collective teacher efficacy.

Item 6.3 Support Processes

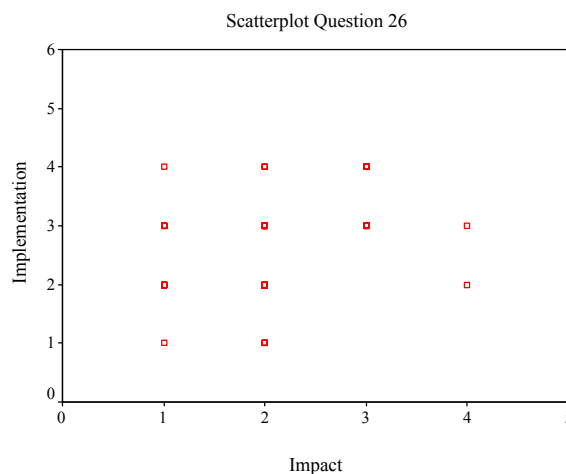
Question 26 provides data reflecting participant perceptions related to how the organization manages key processes that support daily operations as an educational organization and faculty and staff delivering services. Figure 4.75 displays the correlations between implementation and the impact on collective teacher efficacy for question 26.

Figure 4.75. Research Question 4: Correlation between Implementation and the Impact on Collective Teacher Efficacy for Question 26

26. To what extent has the district provided support processes that ensure success of educational programs and student services?

| Question 26 Correlations | | | |
|--------------------------|---------------------|----------------|--------|
| | | Implementation | Impact |
| Implementation | Pearson Correlation | 1 | .307 * |
| | Sig. (2-tailed) | . | .019 |
| | N | 58 | 58 |
| Impact | Pearson Correlation | .307 * | 1 |
| | Sig. (2-tailed) | .019 | . |
| | N | 58 | 58 |

*. Correlation is significant at the 0.05 level (2-tailed).



Question 26, the extent to which the district has provided support processes that ensure success of educational programs and student services, reveals significant correlations at α level 0.05 between implementation and impact on collective efficacy ($r = .31$; $p = .000$). The correlation for question 26 shows that the greater the implementation of district support processes that ensure success of educational programs and student services, the greater the impact on collective teacher efficacy.

In Category 6, Process Management, each of the questions for Item 6.1 education Design and Delivery Processes, Item 6.2 Student Services, and Item 6.3 Support Processes, the data showed significant correlations between the implementation of management practices related to each question and the impact on collective teacher efficacy. Questions 24 and 25 exhibit the largest correlations at α level 0.01 at $r = .58$ and $.62$. These questions specifically relate to what extent the organization has a systematic process to develop and deploy effective educational programs aligned to district and state goals and the extent to which the organization monitors and measures services to ensure student success.

Summary of Research Question 4

The analysis of the extent of implementation and the impact of implementation on collective teacher efficacy revealed significant correlations between the two variables. Using Jacob Cohen's guideline that r -values of $.50$ or higher represent large correlation coefficients, the ranking shows that 17 of the 26 areas addressed in the study have correlation coefficients over $.50$. The data suggests that a positive correlation exists between the extent of implementation and the impact of implementation on collective teacher efficacy. Table 4.62 provides a closer examination of those areas that appear to have the greatest impact on collective efficacy. For all of the questions except those asterisked correlation coefficients are at α level 0.01, and those asterisked are at α level 0.05.

Table 4.62—Ranked Correlation Coefficients for Implementation of the Baldrige Criteria and the Impact on Collective Teacher Efficacy

| Item | Question | Pearson Correlation Coefficient * = α level 0.05 |
|----------|--|--|
| 1.1 - 3 | To what extent have district leaders reviewed district performance to assess progress of goals? | .751 |
| 4.1 - 16 | To what extent has the district disaggregated and analyzed data to modify and improve instruction to enhance student achievement? | .708 |
| 4.1 - 15 | To what extent has the district analyzed data and reviewed district performance as it relates to goals and action plans? | .706 |
| 4.2 - 17 | To what extent has the district employed an effective system for making needed data and information available? | .692 |
| 1.2 - 6 | To what extent have district leaders ensured ethical practices in all interactions with students and stakeholders? | .652 |
| 4.1 - 14 | To what extent has the district gathered and integrated data and information from many sources to support key processes and action plans? | .643 |
| 3.2 - 13 | To what extent has the district collected information from students and stakeholders to improve the district and its services? | .641 |
| 1.1 - 2 | To what extent have district leaders communicated the core values and performance expectations? | .626 |
| 6.2 - 25 | To what extent has the district employed a process to measure the effectiveness of the implementation of educational programs? | .621 |
| 6.1 - 24 | To what extent has the district employed a process for developing educational programs aligned to district and state goals? | .584 |
| 2.2 - 9 | To what extent have district leaders developed and implemented action plans to achieve objectives? | .571 |
| 1.2 - 5 | To what extent have district leaders facilitated the use of district resources (e.g. facilities, extended outreach programs, community education, etc.) for the community? | .543 |
| 5.2 - 20 | To what extent has the district addressed and delivered faculty and staff education, training, and development that is aligned to district goals, action plans, and student achievement? | .529 |
| 3.2 - 12 | To what extent has the district built relationships to enhance student performance and retain students? | .522 |
| 1.1 - 1 | To what extent have district leaders established core values and performance expectations? | .519 |
| 2.1 - 7 | To what extent have district leaders facilitated a planning process that involves all stakeholders? | .515 |
| 3.1 - 11 | To what extent has the district developed strategies to determine key student needs, expectations, and stakeholder satisfaction? | .504 |
| 2.1 - 8 | To what extent have district leaders considered student and stakeholder needs, expectations, and opportunities in the planning process? | .475 |
| 5.1 - 18 | To what extent has the district organized and managed work and jobs to promote cooperation, initiative, innovation, and organizational culture? | .449 |
| 1.2 - 4 | To what extent have district leaders examined the changing needs and capabilities of the district to ensure continuous improvement? | .444 |
| 5.3 - 21 | To what extent has the district ensured workplace health, safety, and ergonomics? | .439 |
| 5.1 - 19 | To what extent has the district motivated faculty and staff to develop and utilize their full potential? | .430 |
| 2.2 - 10 | To what extent have district leaders identified performance measures for tracking the progress of action plans? | .383 |
| 6.1 - 23 | To what extent has the district considered student differences when developing educational programs that engage students in active learning? | .359 |
| 5.3 - 22 | To what extent has the district employed a system to assess the key factors that affect faculty and staff well-being, satisfaction, and motivation? | .335 * |
| 6.3 - 26 | To what extent has the district provided support processes that ensure success of educational programs and student services? | .307 * |

The data suggests that the extent to which an organization's senior leaders have a process and deploy the process to guide the district by reviewing performance measures to assess the progress of goals can have a significant impact on the collective efficacy of teachers. The organization's approach to measurement and analysis of organizational performance and information management reflected in questions 14, 15, 16, and 17 linked to Items 4.1 and 4.2 on the Criteria also appears to have a significant impact on collective teacher efficacy. All of the areas that emerged with large positive correlations between the extent of implementation and the impact of implementation on collective teacher efficacy address the extent to which:

- Senior leaders assess and act on data;
- The organization links data to action plans and objectives;
- The district reviews and disaggregates the data to modify instruction to enhance student achievement;
- The organization employs processes to develop educational programs aligned to state and district goals; and
- The district employs a process to measure the effectiveness of the implementation of educational programs.

In addition, senior leaders communicate clearly the core values and performance expectations that will focus the organization to accomplish its mission and vision—student achievement.

Questions 22 and 26 rank the lowest at α level 0.05. Questions 4, 8, 10, 18, 19, 21, and 23 had correlation coefficients below .50 at level 0.01. Question 26, Item 6.3 and the lowest correlation coefficient, addresses the extent to which the district has

provided support processes that ensure success of educational programs and student services. Question 22, Item 5.3, considers the extent to which the district has employed a system to assess the key factors that affect faculty and staff well-being, satisfaction and motivation. Throughout the analysis of the data both aggregated across districts and at the individual district level, these two questions continually emerged at the least level of implementation with the least impact. It appears that these factors, while important, do not have the same level of impact on collective teacher efficacy as other Items.

These results reflect the lower level of implementation noted in research questions 1 and 2 for the aggregate data of the districts as well as the individual district data for Items 5.3 and 6.3. Although the root cause of the perceptions may not be determined by this study, it is plausible that high stakes accountability forces districts to place a higher priority on those strategies that address student results. Other areas, while important to alignment and organizational success, have not yet reached the same levels of deployment reflecting educators' placement of student needs over their own.

All of the questions related to Category 5, Faculty and Staff Focus except for question 20 linked to faculty and staff education and training did not show a large coefficient. Based on these results, the other elements (leadership and data analysis and information) of an integrated management system have greater potential impact than those Items in Category 5. Table 4.63 presents the Baldrige Categories and Items with the correlation coefficient.

| Table 4.63— Ranked Correlation Coefficients by Baldrige Category | | |
|--|-----------------|--|
| Item | Question | Pearson Correlation Coefficient |
| Category 1: Leadership | | |
| 1.1 | 1 | .519 |
| 1.1 | 2 | .626 |
| 1.1 | 3 | .751 |
| 1.2 | 4 | .444 |
| 1.2 | 5 | .543 |
| 1.2 | 6 | .652 |
| Category 2: Strategic Planning | | |
| 2.1 | 7 | .515 |
| 2.1 | 8 | .475 |
| 2.2 | 9 | .571 |
| 2.2 | 10 | .383 |
| Category 3: Student, Stakeholder, Market Focus | | |
| 3.1 | 11 | .504 |
| 3.2 | 12 | .522 |
| 3.2 | 13 | .641 |
| Category 4: Information and Analysis | | |
| 4.1 | 14 | .643 |
| 4.1 | 15 | .706 |
| 4.1 | 16 | .708 |
| 4.2 | 17 | .692 |
| Category 5: Faculty and Staff Focus | | |
| 5.1 | 18 | .449 |
| 5.1 | 19 | .430 |
| 5.2 | 20 | .529 |
| 5.3 | 21 | .439 |
| 5.3 | 22 | .335 * |
| Category 6: Process Management | | |
| 6.1 | 23 | .359 |
| 6.1 | 24 | .584 |
| 6.2 | 25 | .621 |
| 6.3 | 26 | .307 * |
| Note: All correlations are at alpha level .01 except for those marked with an asterisk, which are at alpha level .05 | | |

The results of research question 4 show that the Category 1, Leadership, Items have a significant correlation between implementation and the impact of implementation on collective teacher efficacy. Most important to collective efficacy

is the extent to which senior leaders review district performance to assess progress of goals.

In Category 2, Strategic Planning, the development of action plans to achieve objectives has the strongest correlation (question 9). The performance measures themselves do not appear to be as significant to teachers as they work toward meeting student needs. Question 13, Item 3.2 in Category 3, shows the largest correlation between implementation and the impact of implementation on collective teacher efficacy indicating that knowing what and how to address student needs is significant. In education, the student is our primary customer.

Category 4 is the most significant, in terms of impact on collective teacher efficacy, and focuses on collecting, reviewing, and analyzing performance data. Also important is providing a system for making data available. Knowledge through data appears to play an integral part in teachers' perceptions and ability to collectively address the specific learning-centered needs of students.

The key element in Category 5 is teacher training and development, Item 5.2. Teachers must have the professional capacity to effectively provide a learning-centered education focused on the needs of students with multiple avenues for achievement.

Most important to Category 6 is question 25 that is linked to Item 6.2 and focuses on the extent to which the district measures the effectiveness of the implementation of educational programs. Collective efficacy depends on teachers' knowledge and trust that the educational programs used in the classroom can and will provide the support to maximize student achievement.

The Leadership and Information and Analysis categories had the highest correlations between the extent of implementation and the impact of implementation on collective teacher efficacy. Given that all of the questions related to leadership show a significant correlation, it may be inferred that some degree of causality exists between the implementation of leadership practices defined by the Baldrige Criteria and the ensuing impact on collective teacher efficacy. Leaders' commitment to performance excellence and a systematic approach to communicate that commitment sets the context for employee empowerment and ultimately collective efficacy of teachers.

Category 4, Information and Analysis, is often referred to as the "brain center" for the alignment of strategic objectives and priorities and organizational operations serving as the foundation of a sound performance system. The district's processes for data availability, access to data, and reliable hardware and software provides teachers the tools for analyzing and interpreting student data to improve instruction to enhance student achievement. The significant correlation of the Category 4 questions suggests the importance of a comprehensive and integrated fact-based system for driving decisions focused on student learning.

The results of the correlation analysis support the relationship previously suspected in the analysis of research questions 1, 2, and 3. The trend for the aggregate district data and the individual district data pointed to the relationship unveiled in the correlation analyses.

While each of the Categories and Items have been examined individually, each remains a part of the integrated whole. The fact that each of the Items demonstrates a significant relationship between implementation and the impact on collective teacher efficacy reinforces the synergy derived from viewing the Criteria as an integrated management system. The real impact for any organization using the Criteria does not come from the deployment of an individual Category or even Item; the implementation and alignment of all of the Criteria characterizes high performing organizations. The analysis of the data from this study strongly supports the hypothesis that the collective implementation of the Criteria has the greatest impact on collective teacher efficacy.

Summary of Chapter IV

This chapter described the results and findings of the four research questions:

1. What are the perceptions of central office leaders, principals, and teachers of the extent of implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy?
2. Do differences exist within each district between/among and within panel groups (central office leaders, principals, and teachers) in the perceptions of the extent of the implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the

Criteria, and the impact of the implementation of the Criteria on collective teacher efficacy?

3. What similarities and differences exist between/among districts in regard to the level of difficulty in implementing the Criteria and the impact of the implementation of the Criteria on collective teacher efficacy?
4. What is the relationship between the perceptions of the extent of implementation of the Baldrige Education Criteria for Performance Excellence and the impact of the implementation of the Criteria on collective teacher efficacy?

This study utilized the Delphi Technique to identify the differences between groups and to provide a process to bring the groups to consensus and ultimately a response that reflected the most accurate view of the current reality in each district. The questionnaire for this study linked 26 questions to six of the seven categories of the Baldrige Education Criteria for Performance Excellence and the items for each of those categories. Three school districts from New Mexico, North Carolina, and Texas participated in the study, and participants included central office administrators, principals, and teachers.

The primary purpose of this study was to identify those elements of the Baldrige Education Criteria for Performance Excellence that central office leaders, principals, and teachers perceived as having an impact on collective teacher efficacy. The study also sought to determine if a relationship exists between the perceptions of central office leaders, principals, and teachers concerning the extent of the

implementation of the Criteria, difficulty of implementation, and impact on collective teacher efficacy.

One of the parameters of the study stipulated that districts had implemented the Baldrige Criteria for approximately five years. Each of the districts approached implementation based on the contextual framework of the organization and the needs and requirements of students and stakeholders. In spite of these differences, the data exposed common trends between the districts, within a district, and between/among panel groups in the district.

The analysis of the district results on the extent of implementation suggests that each district may be at a different level of maturity. The Baldrige Criteria is an excellence model that focuses on the effective use of a comprehensive management system that provides “a developmental scale to assess peak performance” that encourages organizations “to raise their performance persistently, from the beginning stages of approach and use, to a mature organization where effective approaches are continuously refined and fully integrated and deployed” (Blazey, 2002).

District A reported the highest level of implementation across all of the Items. District B results indicated that the district has some Items perceived as well deployed and others that show slightly lower levels of implementation. District C results revealed a lower level of implementation across all of the Items. Each district may have focused efforts differently across the Criteria, which may account for some of the variation among the districts.

The second and third Delphi rounds allowed participants to comment on individual perceptions or reasons for a response when that response differed above or

below the median by one point. Participant comments provide greater insight into the maturity of the districts and appear in the following summary of the six Baldrige Criteria categories investigated in this study.

Category 1: Leadership

Item 1.1 Organizational Leadership. Item 1.1 Organizational Leadership focuses on how senior leaders establish and deploy core values and performance expectations throughout the organization balancing value for both students and stakeholders and creating an environment that promotes ethical behavior, equity for all students, empowerment, and innovation. This Item also examines how senior leaders review performance data related to the district's priorities, assess progress toward those priorities, communicate the findings, and act on those findings to move the district to future success.

The greatest consensus within a group across all districts occurred in the central office panel. The variation in responses between central office and principals, and to some degree teachers, may suggest a lack of deployment of core values and expectations. Many organizations set values and expectations but effectively deploying those values and expectations throughout the organization requires a systematic and fully integrated approach. The results, however, indicate that implementation of core values is easy and has a significant impact on collective teacher efficacy. The perceived transparency of core values, as noted in panel comments, may be due to the institutionalization of values in the district. The following comments relate to the implementation of core values and add insight to the variance of responses:

- “While we have established Core Values, they are, in most cases, kept in the background rather than at the forefront.”
- “We have not talked about core values as a district and have no systematic values established.”

The importance of performance expectations, the level of maturity of a district, and the gap between central office, principal, and teachers is reflected in these comments:

- “Teachers want to know how they are doing as well as the progress they are making.”
- “From my perspective, core values and performance expectations have been fully integrated and implemented. Perhaps there is variation from the median because I am not in the classroom on a daily basis to observe how values and performance expectations have not been fully established and implemented.”
- “We are still institutionalizing the processes of reviewing district performance regularly and systematically.”

1.2 Public Responsibility and Citizenship. This Item assesses how the organization fulfills its public responsibility and practices good citizenship and examines how the organization considers current and future impacts on society and how the organization ensures ethical practices in all its interactions with students and stakeholders. In addition, this Item looks at how senior leaders, as well as faculty and staff, promote good citizenship by actively identifying and supporting key communities and how that involvement supports the organization’s mission and core values.

This Item lacked consensus within panels and between panel groups raising two questions:

1. To what extent do districts communicate throughout the organization their support of community efforts?
2. To what extent do educators assume ethical practices and, consequently, fail to engage in discussions concerning them?

In the research on Effective Schools, the correlate on home/school relations found that effective schools actively engage parents and the community in meaningful partnerships to promote student success. Many schools and districts still do not maximize that relationship by developing strong partnerships and/or failing to communicate across the organization efforts toward this goal. Furthermore, teachers, and perhaps principals, have little knowledge about how the district uses or plans responsible use of resources to support and build relationships with the community. Along with the lower levels of implementation of this area, impact on collective efficacy also showed less significance. Panel comments included:

- “Since I am a teacher, I have little knowledge of district leaders’ use of district resources.”
- “I do not see a clear relationship between community use of district resources and teacher efficacy.”
- “I’m not real familiar with what the community uses as our district is very large.”
- “I was not that well informed as to how they use all the facilities of our district.”

The responses related to the extent to which the district ensures ethical practices reflected high levels of deployment, ease of implementation, and strong impact on collective efficacy as evidenced by this panel member's comment:

- “Ethics play an important part on teacher efficacy.”

Category 2: Strategic Planning

Item 2.1 Strategy Development. Item 2.1 Strategy Development focuses on how the organization develops its strategic objectives considering key factors that may influence future success and balancing the needs of students and stakeholders. The results on this Item shows that, although difficult, the districts have a systematic approach varying from reasonable to well-integrated implementation that has a strong to moderate impact on collective efficacy. This Item also had greater agreement between and among panel groups.

The greatest variance occurred in the teacher panels. Teachers may not consistently participate in strategic planning or have an awareness of how or if stakeholder needs are considered in that process. Involvement in the planning process and providing input into decision making may increase empowerment of staff which may account for the perceptions of the impact on collective teacher efficacy. Participant comments reinforce this finding:

- “There are many decisions made that perhaps I do not understand / affect me or am not asked to voice an opinion or offer solutions.”
- “I'm not sure to what extent parents and business partners have been involved. Our district is seeing a shrinking of stakeholder involvement

although we have opened our doors beyond the access of stakeholders in years past.”

Item 2.2 Strategy Deployment. Item 2.2 Strategy Deployment assesses how the organization converts strategic objectives into action plans, especially the extent of deployment throughout the organization as evidenced by alignment of processes to goals and objectives. This Item also considers the organization’s key performance measures or indicators, and how the organization uses those measures to project future performance.

In spite of the difficulty, deployment of action plans occurs more frequently than the use of appropriate performance measures, which remain in the early stages of implementation. The ability to not only deploy action plans but provide evidence of progress impacts collective teacher efficacy. Teachers likely link individual success to the overall success of the district toward goals and objectives, especially those related to student achievement. Panel members offered these comments:

- “Implementation of action plans take time.”
- “Teachers need to know how they are doing so that they can make the necessary adjustments to become better.”
- “The development is done; however, working with the action plans is still intimidating to some teachers.”

Category 3: Student, Stakeholder, and Market Focus

Item 3.1 Knowledge of Student, Stakeholder, and Market Needs and Expectations. This Item looks at the organization's key processes for determining knowledge about the requirements, expectations, and preferences of both current and future student, stakeholder, and markets. The information gained from these processes serves to create a climate open to learning and development of all students.

Responses related to Category 3 varied widely within and between panel groups and showed a moderate impact on collective efficacy. The study districts do not appear to have matured in the ability to collect data for determining key student needs, expectations, and stakeholder satisfaction as suggested by the following panel comments:

- “We are still working on determining satisfaction. We still have to implement student surveys”
- “Other than district wide surveys, I know of few processes in place to call this a systematic approach and deployment.”
- “I believe there is much more we could do to determine student needs.”
- “Our district systematically uses surveys of stakeholders to determine needs of the entire school community.”

The processes for gathering this data require examining these groups as a customer, which has not typically been the mind-set of educators. Although difficult, this information provides valuable insights for making appropriate planning decisions concerning education programs and services. Knowledge about needs and expectations of students and stakeholders also impacts the community strengthening

or weakening support from parents, business partners, and other community stakeholders.

Item 3.2 Student and Stakeholder Relationships and Satisfaction. Item 3.2 assesses how the organization builds relationships to retain students and enhance student learning. This Item also examines the organization's ability to deliver services that satisfy students and stakeholders as well developing new opportunities to meet those needs. In addition, consideration is given to how the organization determines satisfaction and how this information is used for continuous improvement of services.

Perceptions of district implementation of this Item are inconsistent across the districts, and the panel groups acknowledged the difficulty in building student relationships. However, greater agreement occurred between principals and teachers who may find it easier to collect information about students and stakeholders to improve service, which may be linked to their proximity to students and student information. The results suggest that relationship building and improving services impacts teachers' collective efficacy. The following comments give insight into the reason for the dispersion of responses:

- "I struggle to think what processes we have in place to build student relationships."
- "Building relationships is crucial to student performance. We need to take a closer look at "closing the gap" for all students. We are headed there but we have not arrived yet."
- "Our district has done an excellent job reaching out to the public and students through council meetings and educational forums."

- “We are improving our collection process through use of on-line surveys and expanding to include business partners.”
- “I think it is important for the district to know what the stakeholders consider important when planning district improvements.”

Category 4: Information and Management

Item 4.1 Measurement and Analysis of Organizational Performance. Item 4.1 focuses on the mechanical processes for data collection as well as the analytical processes used to interpret the data that is then deployed at all levels of the organization to improve operational and student performance. The greatest variance in responses emerged from the teacher panel, and the least variance occurred in the central office panel. However, this Item still ranked highest for both the aggregate and district data on the extent of implementation. Developing processes for information management is difficult but each district is utilizing a systematic approach that remains in various stages of implementation. The importance of data collection, access, and analyses for decision making at the classroom level has an impact on teachers’ collective efficacy. Panel members’ comments reflect the difficulty but the importance of measurement and analysis:

- “I may not be aware of all that goes on.”
- “We have moved action plans to the department level or the grade level. All teachers are working on action plans.”
- “Our district uses quarterly scorecards at the campus level, vertical level, horizontal level and district level to monitor the progress.”

- “Although my system does this, it is very difficult on all personnel involved.”
- “This is very important and it takes time to implement correctly.”
- “Due to limited training, the use of such information within the classroom continues to be limited.”

4.2 Information Management. This Item assesses how organizations ensure the quality and availability of data and information for faculty, staff, students, stakeholders, and suppliers or partners. The Item addresses not only the availability of data, its integrity, reliability, accuracy, and confidentiality but also whether the hardware and software is user friendly, reliable, and updated to remain current with educational service needs. Perception of the extent of implementation was inconsistent between and among panel groups and between and among districts, but significantly correlated to the impact on collective efficacy.

Since each district may have different technological needs and infrastructure, the variance in the aggregate may be a reflection of these differences. The central office perspective on implementation and difficulty may show greater consensus because of the proximity of this group to the decision making processes related to building the infrastructure of a district wide information management system. All groups are dependent on an effective system to share knowledge and have accurate data for decision-making. Teachers’ access to data and information is an important contributor to collective efficacy. Respondent comments support these findings:

- “Still well under optimized use and availability of information systems.”

- “The question is, available to whom? I don't think all stakeholders (especially teachers and parents) have easy access to all data -- I am thinking in particular of results of satisfaction surveys.”
- “Impact has been strong in instructional areas but limited in other specific areas.”
- “[Student Data Program] being released has helped, although other sources of information would be helpful.”
- “Very easy - we have a program ... [that] contain[s] a history of each student's testing data. Every teacher has it.”

Category 5: Faculty and Staff Focus

5.1 Work Systems. Item 5.1 relates to how the organization designs a system that motivates and enables faculty and staff to achieve high performance. This Item considers jobs, compensation, career progression, and related workforce practices. Principal panels exhibited the strongest consensus with the least variance for this Item. The consensus among principals may result from the relationship between teachers and principals who often conduct many of the teacher evaluations and lead the campus in designing and planning professional growth opportunities. Principals have the greatest influence on teacher and staff motivation.

All panels agreed this Item was difficult to implement, and fell at the bottom of the ranking for extent of implementation in the aggregate and for each district with moderate to limited impact on collective efficacy. Central office and teacher responses showed close alignment in perceptions of all scales raising the question of

whether central office leaders recognize the lack of connection between the district and the classroom, which is reflected in the teacher responses and some of the following comments:

- “Campus administrators help motivate faculty, have seen no evidence from district-level staff.”
- “District empowers principals and principals respond.”
- “We are such a long way away from reaching our full potential. One of our greatest challenges is knowing how to motivate people in this regard. We are making progress, but have such a long way to go.”
- “I believe that if you are working to your full potential, you will be happier and you will do a better job. I feel this has a major impact on teachers.”
- “Professional development hours required, but I do not see that this is a motivator. It has actually discouraged some because they see it as just another district mandate.”

5.2 Faculty and Staff Education, Training, and Development. Item 5.2 considers how the organization’s faculty and staff education and training support the achievement of strategies and objectives. This Item also includes examination of processes for building faculty and staff knowledge, skills, and capabilities that contribute to high performance. Central office administrators show greater confidence in implementation, which is difficult but has a strong impact on collective efficacy. Principals and teachers vary in their perceptions of the extent of district implementation and whether it is easy or difficult to implement. However, both perceive an impact on collective efficacy

although this Item revealed less correlation between implementation and impact. The difference between district level and campus level groups may indicate a lack of alignment between teacher requirements and needs and district level planning and actions as evidenced in the following comments:

- “I wish our district would send teachers to be trained in presenting new concepts, methods, and information. Often Central Office Staff members cannot offer practical ways of implementing strategies when they do not know exactly what we are dealing with in the classroom.”
- “It is difficult to train all groups so that they have the understanding that they need for their level of interaction.”
- “I believe alignment is the strength of our district. I see tight alignment from the state level to the classroom. At this point I don't know how it could be better.”

5.3 Faculty and Staff Well-Being and Satisfaction. Item 5.3 focuses on how the organization maintains a work environment and faculty and staff climate that contributes to the well-being, satisfaction, and motivation of all employees. This Item also examines workplace health, safety, and ergonomics as well as evaluation methods and measures for determining faculty and staff satisfaction and motivation. This Item has the lowest level of implementation. Disparity exists between the central office responses and the principal and teacher responses on the extent of implementation and its impact on collective teacher efficacy. The data reflects consensus in the perceptions of central office, which may indicate that plans have been developed at the district level but have

not been fully deployed throughout the organization. The inconsistencies show up in the panel comments:

- “Teacher satisfaction is important.”
- “There are many district teacher committees that serve as a method of disseminating information and collecting information.”
- “This takes continuous monitoring.”
- “I do not know what they have done.”

Category 6: Process Management

Item 6.1 Education Design and Delivery Processes. Item 6.1 considers how the organization manages the key processes for the design and delivery of educational programs. This item addresses the primary focus of classroom teachers, and while panel members have varying perspectives on the extent of implementation, the panels largely agree it is difficult but has the potential to impact collective efficacy. Panel comments reflect the varied perceptions:

- “As a regular education classroom teacher, I feel that differences are not always considered when making rules.”
- “We have worked for the last two years helping teachers work with students with different learning needs.”
- “I believe this is the district’s strength.”

Item 6.2 Student Services. Item 6.2 Student Services looks at how the organization manages its key student services. As an educational organization, this item addresses the heart of the accountability movement for public schools—meeting the varied

needs of all students. The data reflects the focus the study districts have given to this important work. Strong consensus occurred between and among panel groups on well-integrated implementation, difficulty, and impact on collective efficacy. The correlation analysis suggests the implementation of this Item strongly impacts collective teacher efficacy. In spite of the high level of implementation, one of the comments unveils a possible gap in one of the districts:

- “School evaluation system in place.”
- “There is not a timeline or defined "program evaluation" process or accountability system in place system wide to do this. Largely an individual effort by program specific leaders.”

Item 6.3 Support Processes. Item 6.3 Support Processes assesses how the organization manages key processes that support daily operations as an educational organization and faculty and staff delivering services. The results indicate that educational support process, although difficult to implement, are well deployed. Well-implemented support processes have a strong impact on collective teacher efficacy. The following comment from a panel member supports these findings:

- “Funds, resources, materials, and the autonomy to select supports that are made available to each school. Monitoring programs and making adjustments is needed to ensure programs are being successful.”

This study proposed to identify those elements of the Baldrige Education Criteria for Performance Excellence that central office leaders, principals, and teachers perceived as having an impact on collective teacher efficacy and determine if

a relationship exists between the perceptions of central office leaders, principals, and teachers concerning the extent of the implementation of the Criteria, difficulty of implementation, and impact on collective teacher efficacy. The results strongly suggest that the Baldrige Criteria, as an integrated management system, has a significant impact on collective teacher efficacy. Since collective teacher efficacy links to student achievement, implementation of the Criteria, although difficult, has the potential to systemically address school reform that can and will impact student success and accomplish the purpose for which the Criteria were designed, namely, “to help organizations use an integrated management approach to achieve organizational performance that results in

- delivery of ever-improving value to students and stakeholders, contributing to education quality
- improvement of overall organizational effectiveness and capabilities
- organizational and personal learning” (NIST, 2002).

Chapter V will present a summary, conclusions, and recommendations for the profession and future research.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study proposed to identify those elements of the Baldrige Education Criteria for Performance Excellence that central office leaders, principals, and teachers perceived as having an impact on collective teacher efficacy. The study also sought to determine if a relationship exists between the perceptions of central office leaders, principals, and teachers concerning the extent of the implementation of the criteria, the difficulty of implementation, and the impact of implementation on collective teacher efficacy.

Four research questions addressed this purpose:

1. What are the perceptions of central office leaders, principals, and teachers of the extent of implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the criteria, and the impact of the implementation of the criteria on collective teacher efficacy?
2. Do differences exist within each district between/among and within panel groups (central office leaders, principals, and teachers) in the perceptions of the extent of the implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the criteria, and the impact of the implementation of the criteria on collective teacher efficacy?

3. What similarities and differences exist between/among districts in regard to the level of difficulty in implementing the criteria and the impact of the implementation of the criteria on collective teacher efficacy?
4. What is the relationship between the perceptions of the extent of implementation of the Baldrige Education Criteria for Performance Excellence and the impact of the implementation of the criteria on collective teacher efficacy?

The population for this study included sixty individuals from three school districts from Texas, North Carolina, and New Mexico who have implemented the Baldrige Education Criteria for Performance Excellence for a minimum of five years. For the purpose of this study, the researcher maintained the following assumptions:

1. Respondents to the survey understood the survey instrument, possessed the ability to self-report, and provided their perceptions as accurately as possible.
2. The survey instrument used in this study measured the extent and difficulty of implementation of the Baldrige Performance Excellence Criteria for Education and the perceptions of the impact of implementation on collective teacher efficacy.
3. The Baldrige Education Criteria for Performance Excellence provided a framework that effectively reflects organizational performance.
4. The interpretations in this study accurately reflected the perceptions intended by those who were surveyed.

The Delphi Technique best met the need for a methodology for this study by facilitating the identification of differences between/among groups and also providing a process to bring the groups to consensus and ultimately a response that reflected the most accurate view of the current reality in each district. The questionnaire for this study linked 26 questions to six of the seven categories of the Baldrige Education Criteria for Performance Excellence and the items for each of those categories.

As a rigorous set of criteria, the Baldrige Education Criteria for Performance Excellence encourage organizations to enhance their effectiveness and competitive edge through an integrated management system that creates an aligned approach to organizational performance. The Criteria also serve as a self-assessment tool to guide school districts in improving organizational performance practices, capabilities, and results.

As discussed in Chapter I of this document, the limitations of this study included those inherent when drawing on the perceptions of panelists responding to a survey. Further, this study was limited to three school districts from the states of Texas, North Carolina, and New Mexico who have implemented the Baldrige Education Criteria for Performance Excellence for a minimum of five years.

The review of the literature supported the premise that organizational management practices and performance have a systemic impact on the organization and the organization's stakeholders. Accountability at state and national levels places significant demands on educators, and significant reform of schools cannot take a piecemeal approach at the school-building level and will require the involvement and support of the other components of the system. Transformation that focuses on the

needs and requirements of students and stakeholders requires that senior leaders set direction for the entire system to share in a common vision, develop specific strategies and approaches aligned to key priorities that are deployed up and down the organization, and monitor progress using key performance indicators. The Baldrige Education Criteria for Performance Excellence provides a framework for achieving that goal.

The literature also suggested that school leaders find ways to build collective efficacy, but missing throughout the discussion is the role and impact that leadership may actually have on collective efficacy itself. The relation between campus leadership and collective efficacy has not been addressed in the current body of research leaving unresolved the issue of the impact of leadership change, management style, or other informal leadership groups. This study sought to understand the extent that campus leadership as well as the leadership and organization of the district impact collective teacher efficacy.

Summary of Findings

The key findings of this study suggest that the Baldrige Education Criteria for Performance Excellence, which the three study school districts chose as a framework for improving organizational performance, has had a perceived positive impact on collective teacher efficacy. The results of this study yielded the following key findings related to each of the four research questions.

Research Question 1

Research question 1 asked, “What are the perceptions of central office leaders, principals, and teachers of the extent of implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in implementing the criteria, and the impact of the implementation of the criteria on collective teacher efficacy?” Although difficult to implement, districts have persisted in their efforts as shown in the responses that indicate the districts have a systematic approach which varies from fully integrated and implemented with very strong fact based cycles of improvement to well integrated and implemented with a few Items reported as reasonably implemented.

As the level of implementation increased, the perception of the impact of implementation on collective efficacy also increased with less variance and greater consensus between and among groups. The central office panel reached consensus more often across all scales (extent of implementation, difficulty of implementation, and impact on collective teacher efficacy). The variance in responses within panel groups occurred more often in the principal and teacher panels, and central office and principal panels perceive higher levels of implementation.

Research Question 2

Research question 2 asked, “Do differences exist within each district between/among and within panel groups (central office leaders, principals, and teachers) in the perceptions of the extent of the implementation of the Baldrige Education Criteria for Performance Excellence, the level of difficulty in

implementing the criteria, and the impact of the implementation of the criteria on collective teacher efficacy?” Each of the study districts have implemented the Baldrige Criteria within different contexts, but the results, although varied in the levels of implementation, illuminated common trends among and between central office, principals, and teachers. The least variance in responses occurred within the central office panel of each district with the greatest variance in the teacher panel. All of the panel groups perceived that implementation was difficult, and the extent of implementation appeared to influence the level of impact on collective efficacy.

Research Question 3

Research question 3 asked, “What similarities and differences exist between/among districts in regard to the level of difficulty in implementing the criteria and the impact of the implementation of the criteria on collective teacher efficacy?” Overall, the study districts perceived that the management processes represented in the Baldrige Criteria were difficult to implement, but implementation had a strong to moderate impact on collective teacher efficacy.

Two districts considered Item 1.1, the extent to which the district ensures ethical practices, easy to implement, and implementation has a strong to moderate impact on collective efficacy. The districts varied somewhat on which Items were difficult and whether the impact of implementation was strong or moderate. District C results showed perceptions that all of the Items were difficult to implement with moderate to limited impact on collective efficacy. However, District C also reported perceptions of implementation at lower levels than the other study districts. The level

of maturity in deployment of its approaches appeared to have an influence on the perceptions of the panel members on the impact of implementation on collective efficacy.

Research Question 4

Research question 4 asked, “What is the relationship between the perceptions of the extent of implementation of the Baldrige Education Criteria for Performance Excellence and the impact of the implementation of the criteria on collective teacher efficacy?” Seventeen of the twenty-six questions revealed correlation coefficients values over .50, which strongly suggests that some degree of relationship exists between the implementation of integrated management practices defined by the Baldrige Criteria and the impact of that implementation on collective teacher efficacy. Category 1, Leadership, and Category 4, Information and Analysis, had the highest correlation values indicating that commitment of senior leaders to set the direction for performance excellence and the implementation of a comprehensive, integrated fact-based data management system was perceived to have a strong impact on the collective efficacy of classroom teachers.

In previous research on collective teacher efficacy, Goddard (2000) and Bandura (1986, 1997) have recognized the role of school culture, the social context, in influencing group behaviors and responses based on group capability. While current measures of collective efficacy have provided a mechanism for understanding how organizations function, the research has not provided a description of the organizational processes that impact the development of collective efficacy. The high

degree of correlation between perceptions of the implementation of the Baldrige Criteria as an integrated management system and the perceptions of the impact on collective teacher efficacy suggests that the organizational processes defined by the Criteria provide a framework for establishing an organizational culture conducive to the development of collective teacher efficacy.

Conclusions

Based on the results and analysis within the framework and limitations of the four research questions and a review of the literature, several conclusions can be drawn concerning the perceptions of the implementation of the Baldrige Education Criteria for Performance Excellence as an integrated management system.

- Implementation of the Baldrige Criteria requires a long-term commitment, as evidenced by the superintendents of each of the study districts as well Baldrige Award Winners in Education.
- Districts committed to implementation of the Criteria develop systematic approaches to management processes, persevere in their deployment, and continually assess performance to determine areas for improvement.
- The reason for the difficulty of implementation of the Criteria may be in the effort required to align and deploy systematic approaches throughout the organization.
- Commitment and implementation begins at the senior leadership level of central office and cascades through the organization to principals and classroom teachers. The extent to which systematic management

approaches have been deployed to the classroom teacher level determines the level of impact of implementation on collective efficacy.

- The Baldrige Education Criteria for Performance Excellence provides a framework for school districts to improve organizational performance from a systems perspective to achieve organizational and student success.
- The more mature a district's deployment/implementation of the Criteria, the greater the impact on collective teacher efficacy.

Recommendations for the Profession

Several recommendations for consideration evolved through the analysis of the data generated by the Delphi rounds and from the conclusions drawn from this research. The following recommendations, which are derived from the research and findings of this study, may serve school districts embarking on the journey toward performance excellence with the Baldrige Criteria as a roadmap and framework for systemic change.

1. Reinforce the importance of writing a mission/vision statement but also modeling, encouraging, and maintaining consistent communication regarding the deployment of the organization toward that mission.
2. Communicate throughout the organization how the district supports the community and also how the district involves all stakeholders in meaningful partnerships.

3. Employ a clearly defined process for strategic planning, planning for future success, that is understandable to all stakeholders whose needs have been identified through multiple data gathering techniques and measures.
4. Develop realistic plans to optimize operational performance and student achievement. Alignment requires that districts, campuses, and individual teachers understand how their work aligns to the goals and objectives of the district. In order to gain insight into the implementation of action plans, utilize strategies, such as surveys and personal interviews, to gauge the extent of deployment across the organization.
5. Use a variety of systematic methods to gather and analyze data to determine current and future requirements of all student groups and stakeholders. Organizations must expand on methods to better understand the voice of internal and external customers, such as focus groups, surveys, frequent and open two-way communication. Organizations must do more than collect data. The data must filter through effective processes for analyzing, synthesizing, and disseminating information for use in decision-making.
6. Focus on district work systems to enhance faculty and staff performance and commitment. Work systems, especially those related to motivating and developing faculty, are often delegated primarily to the principal and a central component of site-based decision making. Consequently, this leaves the district vulnerable to misalignment of these systems and suboptimization of faculty and staff potential.

7. Consider the following questions related to faculty and staff:
 - How have plans to address the work environment been communicated and have all stakeholders provided input?
 - Has the organization determined the key factors that affect staff well-being and satisfaction?
 - Are evaluation results of well-being and satisfaction communicated and acted upon?
8. Given the difficulty that educational organizations have in systematically implementing the Baldrige, districts should utilize a phased-in approach to implementation through a graduated assessment process that allows for learning and maturation in keeping with the district's quality journey.

In addition to the above recommendations which stem from the Baldrige Criteria, the analyses of the data found that the perceptions of the management processes employed by district leaders can and do make a difference to classroom teachers and their ability to address the educational challenges of teaching and learning for all children. Districts benefit from examining more closely the link between operational practices at the district level and the subsequent impact on collective teacher efficacy.

Recommendations for Future Research

The school districts in this study, which differed in size and location, were at various levels of implementation of the Baldrige Criteria. In addition, the study methodology limited the size of the panel groups providing only a selected sample for participation. To verify and further extend knowledge of which elements of the Baldrige Education Criteria for Performance Excellence central office leaders, principals, and teachers perceive to have the greatest impact on collective teacher efficacy, the following may serve as next steps for study and analysis:

- Replicate the study in districts with similar experience and/or contextual parameters.
- Conduct a collective efficacy survey to gain insight into the level of collective efficacy in the district.
- Examine in greater depth the nature of the relationships between implementation and collective teacher efficacy through both quantitative and qualitative research designs.

The following recommendations apply directly to studying the implementation and best practices of districts utilizing the Baldrige Criteria:

- Examine how districts communicate community involvement, share and discuss ethical practices, and best practices for building community relationships.
- Since developing appropriate measures for all district functions has not typically occurred in public education, and even using student achievement

data is relatively new, more study needs to be conducted to identify and define robust measures of K-12 public education processes.

- Examine in greater depth and breadth how the use of key performance measures as a component of teacher evaluation impacts teacher performance and ultimately collective efficacy.
- Examine district management information systems, types of data sources, and methods for access. Research to determine what data provides teachers and administrators the most leverage in making decisions on improvement of processes.
- Examine faculty and staff education of high performing organizations to look for commonalities and best practice.
- Examine the key satisfaction factors that have the greatest impact on collective efficacy.
- Examine the impact of operational processes on organizational culture, which impacts collective teacher efficacy.
- Study other educational and non-educational organizations that have implemented the Baldrige Criteria to determine the most effective methods to facilitate implementation of the Baldrige Criteria.

Closing Statement

School reform efforts have permeated both educational and political discussions for well over fifty years. The fact that these discussions remain alive and well indicates that while many examples of effective schools and successful students dot the educational landscape, they remain anomalies rather than the norm in public education. The capacity of public schools to meet the diverse needs of all students rests on the ability and willingness of educational leaders to design and manage intentional systems that yield very specific, equitable, and non-negotiable results for all students.

District leaders, teachers, and staff already work as hard as they can to meet the challenges of educating a diverse student population. Many district leaders can point to multiple examples of successful programs and initiatives within the system. However, when faced with the question, “how do you know what works and why, or what’s the best way to sustain and expand successful practices, their dedication and hard work far exceed their ability to offer definitive answers” (Siegel, 1997 p.12). Siegel identifies the reason as a result of random acts of improvement rather than the implementation of a focused strategy that yields aligned acts of improvement.

This study provided district leaders important insights and a model that demonstrates the implementation of the Baldrige Education Criteria Items that have the greatest potential to significantly impact collective teacher efficacy. Arcaro (1995) noted the following additional benefits to school districts who apply the Criteria as a framework for a systems perspective approach to school improvement:

- The establishment of a culture in education that focuses on meeting the needs of students
 - A staff that is involved, informed, and motivated to constantly improve the quality of every educational process
 - Increased cooperation at all levels
 - The creation of better learning and working environments for all
 - Improved efficiency and productivity by all
 - Improved student and administrative outcomes
 - Effective teamwork by all stakeholders
 - Improvements in education recognized by community, staff, and students
- (p. 91)

Our teachers are our line workers who directly influence student achievement.

With this at the forefront, raising collective teacher efficacy becomes an important task of the school system. Implementation of the Baldrige Education Criteria for Performance Excellence significantly impacts collective teacher efficacy while providing a framework that facilitates the development of aligned acts of improvement directed at the aim and purpose of the educational system—student achievement.

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APPENDIX A
SUPERINTENDENT LETTER AND STUDY OVERVIEW

K a t h r y n L e R o y

Mrs. Nadine Kujawa
Aldine Independent School District
14910 Aldine Westfield Road
Houston, Texas 77032-3099

Dear Mrs. Kujawa:

I am a graduate student at Texas A&M University in Texas completing a doctoral degree in Educational Administration under the guidance of Dr. Bryan Cole and would appreciate your consideration in assisting me in conducting a research study related to the implementation of the Baldrige criteria as an integrated management system for schools, the level of difficulty of implementing the criteria, and its perceived impact on collective teacher efficacy. I am hoping to engage three school districts in the project, one each from Florida, North Carolina, and Texas.

I have enclosed a vita, a brief outline of the study including the criteria for the study subjects, and a sample of the instructions for completing the Round One Questionnaire. My goal is to complete the data collection prior to December 15, 2002. Upon completion of the study, you will receive a compilation and an analysis of the aggregated data from your district as well as comparison data of all participating districts. Responses of individuals from each district will remain confidential.

Please feel free to contact me by phone or email advising me of a convenient time that I might discuss the project. Thank you, and I look forward to hearing from you.

Respectfully

Kathryn LeRoy

Enclosures: Vita
 Project Overview
 Sample Instructions

RESEARCH STUDY OVERVIEW

Baldrige Education Criteria for Performance Excellence: District Personnel Perceptions of Implementation and Impact on Collective Teacher Efficacy

The study hopes to determine which management processes potentially have the greatest impact on teacher collective efficacy and how the perceptions of this impact differ between senior leaders (superintendent and central office administrators), principals, and classroom teachers. Recent research suggests that high collective efficacy, the belief that this group of teachers can make a difference for students, positively impacts student achievement. The study also seeks to determine the level of difficulty of implementing key management processes. By identifying both the level of difficulty of implementation and the level of impact, a matrix can be developed that provides a guide reflecting those areas that are easy to implement and have the greatest impact on collective efficacy which, in turn, can have a significant impact on student success. Districts just beginning the quality journey consistently want to know not only how to begin but also where to begin. The results of this study may provide insight into answering those questions.

The study requires the participation of 24 participants per district. Each district will consist of three eight-member expert panels—central office leaders including the superintendent, campus principals, and teachers from the principals' campus. The superintendent will appoint the central office and principal panel members, and principals will appoint one teacher panel member from their respective campus following the specified criteria. Panel members for each group must meet the following qualifications:

Central Office Leaders and Principals

- Employed by the district during the implementation of the Baldrige Education Criteria for Performance Excellence;
- Provides leadership at the district and/or campus level for the implementation of the Baldrige Education Criteria for Performance Excellence;
- Possesses a common understanding of collective teacher efficacy as defined in this study.

Teachers

- Employed by the district during the implementation of the Baldrige Education Criteria for Performance Excellence;
- Participates in district and/or campus decision-making committees related to the Baldrige Education Criteria for Performance Excellence.
- Possesses a common understanding of collective teacher efficacy as defined in this study.

This study will employ the Delphi technique which consists of basically three phases requiring approximately 20-30 minutes for each round (total time should not exceed 90 minutes). Each questionnaire will be mailed with a return envelope or accessed on a web site.

The first phase or round one involves the completion of a questionnaire by each panel member, analyses of the response data, and a synthesis of the responses resulting in the formation of a revised questionnaire that eliminates items for which each group reached consensus.

Round two utilizes this revised questionnaire whereby participants examine their original response in relation to the median score of the group response and formulate a new response. This second round also initiates a minority report that provides additional data concerning responses that deviate from the mean by more than one point.

The final round consists of a revised questionnaire based on the responses from round two, reports the individual and group median, gives members the opportunity for final consideration of the survey items, and asks panel members to review the minority report adding comments in support or opposition to the panels' median position.

Each questionnaire should take the participants one-half hour or less to complete.

After the final round, analysis of the questionnaire data will be used to generate a matrix that illustrates the level of difficulty of implementing the Baldrige Education Criteria for Performance Excellence and the impact of implementation of the criteria on collective teacher efficacy.

The entire process should take no more than 6-8 weeks and be completed no later than December 15. The following timeline may be adjusted based on the date of agreement with each school district and establishment of the study participants in the district.

| | |
|--------------------------------------|-------------------|
| Return participant information forms | October 16, 2002 |
| Receive Round I Questionnaire | October 21, 2002 |
| Round I Questionnaire due | November 1, 2002 |
| Receive Round II Questionnaire | November 15, 2002 |
| Round II Questionnaire due | November 22, 2002 |
| Receive Round III Questionnaire | December 2, 2002 |
| Round III Questionnaire due | December 6, 2002 |
| District receives analysis data | March 30, 2003 |

APPENDIX B

STUDY PARTICIPANT MATERIALS

Information Sheet

Thank you for participating in the research concerning the impact of district-level leadership and management processes on collective teacher efficacy. Approximately seventy-two individuals from three school districts will contribute to the study that will take place from November 15 through January 2003. Your selection was based on your leadership and involvement in decision-making committees at the district and/or campus level.

This study will utilize the Delphic Technique which is a methodology for gathering data from a small number of individuals who have significant knowledge or experience in the topic under consideration. You will be asked to complete three separate questionnaires as indicated in the time schedule. Participants have the option to complete the Round One questionnaire on-line by accessing a secure web site designed specifically for this study and receive Rounds Two and Three Questionnaires via email, or participants may receive all questionnaires through regular mail. You can access the instructions and Round One questionnaire at the following web site: <http://www.augustegallery.com/survey/>.

All responses remain confidential by assigning a code to each questionnaire that does not link back to a specific individual. In addition, the responses will be analyzed and presented as aggregate data without identification of specific district or campus personnel. Non-participation in this activity will not affect personal or professional relationships.

This research study has been reviewed and approved by the Institutional Review Board-Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, you can contact the Institutional Review Board through Dr. Michael W. Buckley, Director of support Services, Office of Vice President for research at (979) 458-4067 or mwbuckley@tamu.edu. By completing the Round One questionnaire, you hereby voluntarily agree to participate in this research.

Thank you for your contribution and do not hesitate to contact me at (281) 370-0233 or kleroy@tamu.edu if you have any questions or concerns.

Kathryn A. LeRoy
Doctoral Candidate
Texas A&M University
(281) 370-0233 or (713) 560-0661
kleroy@tamu.edu

Dr. Bryan R. Cole
Department Head/Committee Chair
Texas A&M University
(979) 845-5356
b-cole@tamu.edu

Enclosures: Instructions
 Research Time Schedule
 Round One Questionnaire
 Return Envelope

QUESTIONNAIRE ROUND ONE INSTRUCTIONS

Purpose:

This questionnaire strives to collect data to determine the impact of district-level leadership and management processes on collective teacher efficacy as perceived by central office leaders, principals, and teachers.

Directions:

1. The following questionnaire contains twenty-six (26) statements that reflect key management processes found in school districts. You should respond to each statement based on your best understanding of how each management process has been implemented.

For example,

To what extent have district leaders established core values and performance expectations?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher efficacy |
|--|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented <input type="checkbox"/> Systematic approach, well integrated and implemented <input type="checkbox"/> Systematic approach, reasonably implemented <input type="checkbox"/> Systematic approach, early stages of planning and implementation <input type="checkbox"/> No systematic approach <input type="checkbox"/> Not observed | <input type="checkbox"/> Very easy <input type="checkbox"/> Easy <input type="checkbox"/> Difficult <input type="checkbox"/> Very difficult <input type="checkbox"/> Not observed | <input type="checkbox"/> Strong impact <input type="checkbox"/> Moderate impact <input type="checkbox"/> Limited impact <input type="checkbox"/> No impact <input type="checkbox"/> Not observed |

Implementation: To what extent has your district implemented this management process?

Level of Difficulty: What was the level of difficulty of implementing this management process?

Impact on Collective Teacher Efficacy: What do you perceive to be the impact of the implementation of this management process on collective teacher efficacy?

2. Place an "X" in the box next to the statement of your response.
3. Please complete the demographic information. Since each questionnaire is confidential and has been coded, there is no link back to an individual person.
4. Return the completed questionnaire in the stamped, addressed envelope provided.

Key Terms:

Collective Teacher Efficacy refers to the perceptions of teachers that their efforts as a whole will have a positive effect on student achievement.

Extent refers to the degree of implementation.

Impact refers to the positive or negative influence on a given construct.

Implementation refers to putting a strategy or initiative into practice.

Level of Difficulty refers to the complexity and effort required for implementation.

If you have any questions, please contact:

Kathryn LeRoy

(281) 370-0233 or (713) 560-0661

kleroy@tamu.edu

Research Timeline

| | |
|---------------------------------|-------------------|
| Receive Round I Questionnaire | December 10, 2002 |
| Round I Questionnaire due | December 17, 2002 |
| Receive Round II Questionnaire | January 6, 2003 |
| Round II Questionnaire due | January 13, 2003 |
| Receive Round III Questionnaire | January 20, 2003 |
| Round III Questionnaire due | January 27, 2003 |
| District Receives Study Report | Spring 2003 |

QUESTIONNAIRE ROUND ONE

The following questions represent key management processes that reflect how district leaders understand the values and expectations of students and stakeholders for a safe learning environment. Leaders promote clear values such as respect, fairness, equity, and tolerance. They have a clear responsibility to the public and the community to consider all the risks associated with school/district operations.

1. To what extent have district leaders established core values and performance expectations?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

2. To what extent have district leaders communicated the core values and performance expectations?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

3. To what extent have district leaders reviewed district performance to assess progress of goals?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

4. To what extent have district leaders examined the changing needs and capabilities of the district to ensure continuous improvement?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

5. To what extent have district leaders facilitated the use of district resources (e.g. facilities, extended outreach programs, community education, etc.) for the community?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

6. To what extent have district leaders ensured ethical practices in all interactions with students and stakeholders?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

The following questions represent key management processes that reflect how the district develops, implements, and measures progress of strategic objectives and action plans.

7. To what extent have district leaders facilitated a planning process that involves all stakeholders?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

8. To what extent have district leaders considered student and stakeholder needs, expectations, and opportunities in the planning process?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

9. To what extent have district leaders developed and implemented action plans to achieve objectives?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

10. To what extent have district leaders identified performance measures for tracking the progress of action plans?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

The following questions represent key management processes that reflect how the district uses a variety of methods to determine and anticipate student and stakeholder needs and concerns. The district uses student input to determine the relevance of student and educational services and develops new ones based on this input. It builds and improves positive relationships with students and stakeholders using a variety of methods and uses satisfaction and dissatisfaction data to target improvement strategies.

11. To what extent has the district developed strategies to determine key student needs, expectations, and stakeholder satisfaction?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

12. To what extent has the district built relationships to enhance student performance and retain students?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

13. To what extent has the district collected information from students and stakeholders to improve the district and its services?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

The following questions represent key management processes that reflect how the district uses data and information to improve the school environment and student learning based on the needs of stakeholders. The district gives data users (including students, parents, staff, and faculty) access, confidentiality, and ongoing reliability of information.

14. To what extent has the district gathered and integrated data and information from many sources to support key processes and action plans?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

15. To what extent has the district analyzed data and reviewed district performance as it relates to goals and action plans?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

16. To what extent has the district disaggregated and analyzed data to modify and improve instruction to enhance student achievement?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

17. To what extent has the district employed an effective system for making needed data and information available?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

The following questions represent key management processes that reflect how district work systems promote cooperation and capability to respond to changing student needs. The district provides training, education, and support for faculty and staff. The district assesses safety, health, and well being through a variety of methods and indicators. The district maintains a safe, healthful, and secure work environment.

18. To what extent has the district organized and managed work and jobs to promote cooperation, initiative, innovation, and organizational culture?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

19. To what extent has the district motivated faculty and staff to develop and utilize their full potential?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

20. To what extent has the district addressed and delivered faculty and staff education, training, and development that is aligned to district goals, action plans, and student achievement?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

21. To what extent has the district ensured workplace health, safety, and ergonomics?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

22. To what extent has the district employed a system to assess the key factors that affect faculty and staff well-being, satisfaction, and motivation?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

The following questions represent key management processes that reflect a district's development and implementation of educational programs focused on active student learning and aligned to district and state student achievement goals. The district provides programs and resources to ensure faculty and staff are prepared to meet the needs of students. District plants, facilities, information services, student services, and other support services promote student learning and a safe environment.

23. To what extent has the district considered student differences when developing educational programs that engage students in active learning?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

24. To what extent has the district employed a process for developing educational programs aligned to district and state goals?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

25. To what extent has the district employed a process to measure the effectiveness of the implementation of educational programs?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

26. To what extent has the district provided support processes that ensure success of educational programs and student services?

| Implementation | Difficulty of Implementation | Impact on Collective Teacher Efficacy |
|---|---|--|
| <input type="checkbox"/> Systematic approach, fully integrated and implemented very strong fact based cycles of improvement | <input type="checkbox"/> Very easy | <input type="checkbox"/> Strong impact |
| <input type="checkbox"/> Systematic approach, well integrated and implemented | <input type="checkbox"/> Easy | <input type="checkbox"/> Moderate impact |
| <input type="checkbox"/> Systematic approach, reasonably implemented | <input type="checkbox"/> Difficult | <input type="checkbox"/> Limited impact |
| <input type="checkbox"/> Systematic approach, early stages of planning and implementation | <input type="checkbox"/> Very difficult | <input type="checkbox"/> No impact |
| <input type="checkbox"/> No systematic approach | <input type="checkbox"/> Not observed | <input type="checkbox"/> Not observed |
| <input type="checkbox"/> Not observed | | |

Demographic Information

Circle the number of your answer.

Your current position

1. Teacher
2. Principal
3. District-level Administrator

Thank you for completing the Round One Questionnaire. Please return in the enclosed stamped envelope. You will receive an email verifying receipt of your response. If you do not receive verification within five days of mailing your response, please contact Kathryn LeRoy at kleroy@tamu.edu. The Round Two Questionnaire will follow within one week following the receipt of all Round One Questionnaires.

VITA

Kathryn A. LeRoy
8772 Tiffany Court
Montgomery, Texas 77316
kleroy@tamu.edu

Education

2004 Ph.D., Educational Administration, Texas A&M University, College Station, TX
1998 M.Ed., Curriculum and Instruction, University of Houston, Houston, TX
1970 B.A., English, University of Houston, Houston, TX

Professional Affiliations

Quality Texas Foundation Board of Examiners
American Society for Quality

Experience

| | |
|-------------------------|--|
| Present | Chief Evaluation Officer Klein Independent School District, Klein, TX |
| 2001-2003 | Education Specialist, Leadership Development Services Region IV Education Service Center, Houston, TX |
| 1999-2001 | Reading/Language Arts Coordinator Conroe Independent School District, Conroe, TX |
| 1995-1999 | Education Specialist, Curriculum, Assessment, and Instruction Region IV Education Service Center, Houston, TX |
| 1989-1995/ 1970-1975 | Classroom Teacher, Reading, Language Arts, Social Studies Tomball Independent School District, Tomball, TX Magnolia Independent School District, Magnolia, TX Fort Bend Independent School District, Sugar Land, TX St. Francis de Sales School, Houston, TX |